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ABSTRACT

This document contains tables of data derived from the National Science Foundation/National Institutes of Health (NSF/NIH) Survey of Graduate Students and Postdoctorates in Science and Engineering (graduate student survey), Fall 1993. Unless otherwise specified, the published data represents estimates of total enrollment in Science and Engineering (S&E) programs in approximately 11,150 graduate departments at 605 institutions in the United States and outlying areas. All eligible institutions were included in the survey population in the years 1988 through 1993. From 1984 through 1987 the surveys were conducted on a stratified random sample basis. This document contains 26 statistical tables where data is categorized on the basis of a variety of variables including: total enrollment; field; highest degree granted; citizenship; racial/ethnic background; source and type of major support; gender; enrollment status; geographic distribution; part-time or full-time; doctorate-granting institutions; master's granting institutions; and area of study. (JRH)

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Selected Data on Graduate Students and Postdoctorates in Science and Engineering

Fall 1993

Selected Data Tables

Division of Science Resources Studies
Directorate for Social, Behavioral and Economic Sciences

National Science Foundation

NSF 95-316

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Selected Data on Graduate Students and Postdoctorates in Science and Engineering

Fall 1993

Selected Data Tables

J.G. Huckenpöhler, Project Monitor

Division of Science Resources Studies
Directorate for Social, Behavioral and Economic Sciences

National Science Foundation

NSF 95-316

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Availability of Publications

Single copies are available free of charge from the Division of Science Resources Studies, National Science Foundation, Arlington, VA 22230. SRS data are also available through the World Wide Web (http://www.nsf.gov/sbe/srs/stats.htm) and through STIS (Science and Technology Information System), NSF's online publishing system, described on page iv. If you are a user of electronic mail and have access to Internet, you may order publications electronically. Send requests to pubs@nsf.gov. In your request include the NSF publication number and title, your name, and a complete mailing address. Printed publications may also be ordered by fax (703-644-4278). Please allow 3 weeks for delivery.

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General Notes

Data presented in these tables are derived from the National Science Foundation/National Institutes of Health (NSF/NIH) Survey of Graduate Students and Postdoctorates in Science and Engineering (graduate student survey), Fall 1993. Unless otherwise specified, the published data represent estimates of total enrollment in science and engineering (S&E) programs in approximately 11,150 graduate departments at 605 institutions in the United States and outlying areas.

All eligible institutions were included in the survey population in the years 1988 through 1993. From 1984 through 1987 the surveys were conducted on a stratified random sample basis, with all doctorate-granting institutions and all master's-granting historically black colleges and universities included in the certainty stratum. Data for the remaining master's-granting institutions were divided into two sample strata on the basis of enrollment size. Data for sampled institutions were reestimated in 1988 on the basis of 1983 and 1988 data. During the 1989 survey cycle, S&E field definitions were reviewed and some departments were deleted. Data for 1975 through 1988 were adjusted to conform to the revised definitions.

In 1992 the citizenship categories requested were modified to conform to those used in other surveys conducted by NSF, the Department of Education's National Center for Education Statistics, and others. Prior to that time, permanent residents (those who held green cards but who had not yet been granted U.S. citizenship) were to be included in "Foreign"; in subsequent years these individuals were included in the "U.S. citizens" total and reported according to racial/ethnic background.

For these reasons, and because institutions may revise their data for earlier years, only the latest trend data should be used in historical analyses.

Technical notes about this survey can be found in *Survey of Graduate Students and Postdoctorates in Science and Engineering: Technical Notes and Data Summaries, Fall 1993*, to be released in late 1995. Additionally, to meet the needs of those interested in more detailed data of a specific type, NSF has developed a series of Supplementary Data Releases focusing on specific data topics. An order form for the Supplementary Data Releases is provided in the back of this publication. For further information on data availability, please contact the Project Monitor at the following address:

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Data Availability

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Selected data items for individual doctorate-granting institutions are available on computer-generated institutional profiles. These profiles cover data from this survey as well as data collected in NSF's other academic S&E surveys: the Survey of Scientific and Engineering Expenditures at Universities and Colleges (R&D expenditures survey) and the Survey of Federal Support to Universities, Colleges, and Nonprofit Institutions (Federal support survey). Institutional profiles for any institution or group of institutions are also available on the World Wide Web, or can be ordered in hard copy form through Mr. Richard Bennof. He can be reached at—

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Institutional researchers can obtain data from several academic S&E resources through the Computer Aided Science Policy Analysis and Research (CASPAR) database system, which is an easy-to-use tool for the retrieval and analysis of statistical data on academic S&E resources. CASPAR provides an extensive and growing data library with multiyear statistics on the state of higher education in general and on academic S&E resources specifically. This data library is based on a set of standard institutional and field-of-science definitions across the multiple sources used to develop the database. The CASPAR program includes built-in help capabilities to facilitate the use and interpretation of the data.

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CASPAR data are drawn from a number of sources. All data are available for individual institutions, by State, and at the national level. Longitudinal data from surveys of universities and colleges conducted by the NSF Division of Science Resources Studies include the R&D expenditures survey, the Federal support survey, and the graduate student survey. Data from the surveys of universities and colleges conducted by NCES include earned degrees, opening fall enrollment, faculty salaries, tenure and fringe benefits, and financial statistics.

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Table 1. Total enrollment in all institutions of higher education, by level of enrollment and field: 1975-93

Year	Total	Undergraduate enrollment fields	Graduate enrollment					First-professional enrollment
			Total, all fields	Sciences	Engineering	Health fields	All other fields	
	Total, all U.S. institutions							
1975	11,290,719	9,623,484	1,423,277	234,982	68,271	25,639	1,094,385	243,958
1976	11,121,426	9,617,211	1,258,302	238,956	66,657	28,515	924,174	245,913
1977	11,415,020	9,898,039	1,264,082	243,192	68,702	33,926	918,262	252,899
1978[1]	11,391,950	9,867,493	1,265,961	236,587	67,650	35,585	926,139	258,496
1979	11,707,126	10,181,040	1,261,093	248,131	71,727	38,764	902,471	264,993
1980	12,234,644	10,661,150	1,293,697	252,137	74,365	41,826	925,369	279,797
1981	12,517,753	10,891,663	1,349,572	253,198	79,629	43,499	973,246	276,518
1982	12,588,520	10,978,407	1,329,644	255,828	83,770	43,782	946,264	280,469
1983	12,633,930	11,005,261	1,347,973	256,735	91,175	43,908	956,155	280,696
1984[1]	12,400,392	10,766,018	1,353,554	257,508	92,894	45,258	957,894	280,820
1985[1]	12,411,945	10,749,752	1,384,862	262,971	96,214	46,411	979,266	277,331
1986[1]	12,670,109	10,952,167	1,444,369	266,571	102,135	47,871	1,027,792	273,573
1987[1]	12,923,451	11,191,431	1,461,376	269,826	104,104	48,655	1,038,791	270,644
1988	13,218,786	11,467,209	1,481,509	272,710	103,137	50,085	1,055,577	270,068
1989	13,701,518	11,893,125	1,531,046	279,298	104,150	52,623	1,094,975	277,347
1990	13,983,255	12,110,847	1,596,037	290,418	107,728	55,919	1,141,972	276,371
1991	14,527,724	12,595,337	1,648,950	300,266	113,300	59,384	1,176,000	283,437
1992	14,660,611	12,695,524	1,680,931	313,327	118,117	63,015	1,186,472	284,156
1993	14,478,647	12,482,813	1,700,147	320,946	117,106	68,626	1,193,469	295,687
	Subtotal, 50 States and D.C.							
1975	11,184,859	9,523,976	1,418,616	234,107	68,217	25,292	1,091,000	242,267
1976	11,012,137	9,514,605	1,253,240	238,027	66,615	28,222	920,376	244,392
1977	11,285,787	9,776,273	1,258,157	242,110	68,584	33,609	913,854	251,357
1978[1]	11,260,092	9,742,190	1,260,998	235,532	67,581	35,277	922,608	256,904
1979	11,569,899	10,050,819	1,255,676	247,005	71,677	38,496	898,498	263,404
1980	12,096,895	10,531,631	1,287,497	250,639	74,317	41,490	921,051	277,767
1981	12,371,672	10,754,522	1,342,555	251,684	79,574	43,201	968,096	274,595
1982	12,425,780	10,825,062	1,322,293	254,239	83,709	43,397	940,948	278,425
1983	12,464,661	10,845,995	1,340,137	255,028	91,113	43,382	950,614	278,529
1984[1]	12,241,940	10,618,071	1,345,271	255,652	92,809	44,763	952,047	278,598
1985[1]	12,247,055	10,596,674	1,376,181	261,073	96,112	45,859	973,137	274,200
1986[1]	12,504,489	10,798,800	1,435,288	264,679	102,025	47,353	1,021,231	270,401
1987[1]	12,766,642	11,046,235	1,452,075	268,220	104,026	48,098	1,031,731	268,332
1988	13,055,337	11,316,548	1,471,680	271,277	103,016	49,408	1,047,979	267,109
1989	13,538,563	11,742,531	1,521,581	277,779	104,042	51,943	1,087,817	274,451
1990	13,818,637	11,959,106	1,586,165	288,881	107,619	55,150	1,134,515	273,366
1991	14,358,953	12,439,287	1,639,135	298,414	113,132	58,563	1,169,026	280,531
1992	14,491,226	12,539,820	1,670,024	311,489	117,907	62,213	1,178,415	281,382
1993	14,305,658	12,323,959	1,689,268	319,084	116,893	67,885	1,185,406	292,431
	Outlying areas							
1975	105,860	99,508	4,661	875	54	347	3,385	1,691
1976	109,289	102,606	5,062	929	42	293	3,798	1,621
1977	129,233	121,766	5,925	1,082	118	317	4,408	1,542
1978[1]	131,858	125,303	4,963	1,055	69	308	3,531	1,592
1979	137,227	130,221	5,417	1,126	50	268	3,973	1,589
1980	137,749	129,519	6,200	1,498	48	336	4,318	2,030
1981	146,081	137,141	7,017	1,514	55	298	5,150	1,923
1982	162,740	153,345	7,351	1,589	61	385	5,316	2,044
1983	169,269	159,266	7,836	1,707	62	526	5,541	2,167
1984[1]	158,452	147,947	8,283	1,856	85	495	5,847	2,222
1985[1]	164,890	153,078	8,681	1,898	102	552	6,129	3,131
1986[1]	165,620	153,367	9,081	1,892	110	518	6,561	3,172
1987[1]	156,809	145,196	9,301	1,606	78	557	7,060	2,312
1988	163,449	150,661	9,829	1,433	121	677	7,598	2,959
1989	162,955	150,594	9,465	1,519	108	680	7,158	2,896
1990	164,618	151,741	9,872	1,537	109	769	7,457	3,005
1991	168,771	156,050	9,815	1,852	168	821	6,974	2,906
1992	169,385	155,704	10,907	1,838	210	802	8,057	2,774
1993	172,989	158,854	10,879	1,862	213	741	8,063	3,256

[1] Graduate science and engineering enrollment data for 1978 and for 1984 through 1987 include estimates for master's-granting institutions.

SOURCE: U.S. Department of Education/NCES, Opening Fall Enrollment, and National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

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Table 2. Science and engineering graduate students, by field and enrollment status, in all institutions according to highest degree granted: 1993

Field	In all institutions			Doctorate-granting			Master's-granting		
	Total	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time
Total, all surveyed fields	506,678	330,249	176,429	440,875	307,181	133,694	65,803	23,068	42,735
Total, science and engineering fields	438,052	294,645	143,407	383,991	275,944	108,047	54,061	18,701	35,360
Sciences, total	320,946	220,683	100,263	275,311	204,250	71,061	45,635	16,433	29,202
Physical sciences	35,395	30,619	4,776	33,595	29,913	3,682	1,800	706	1,094
Astronomy	880	848	32	880	848	32	0	0	0
Chemistry	20,142	17,210	2,932	19,056	16,792	2,264	1,086	418	668
Physics	13,907	12,399	1,508	13,451	12,155	1,296	456	244	212
Physical sciences, n.e.c.	466	162	304	208	118	90	258	44	214
Earth, atmospheric, & ocean sciences	15,891	11,403	4,488	14,132	10,802	3,330	1,759	601	1,158
Atmospheric sciences	1,112	980	132	1,095	978	117	17	2	15
Geosciences	7,784	5,971	1,813	7,326	5,790	1,536	458	181	277
Oceanography	2,653	2,218	435	2,515	2,171	344	138	47	91
Earth, atmos., & ocean sci., n.e.c.	4,342	2,234	2,108	3,196	1,863	1,333	1,146	371	775
Mathematical sciences	20,164	14,584	5,580	17,776	13,830	3,946	2,388	754	1,634
Mathematics & applied mathematics	17,089	12,251	4,838	14,779	11,523	3,256	2,310	728	1,582
Statistics	3,075	2,333	742	2,997	2,307	690	78	26	52
Computer sciences	36,347	17,458	18,889	30,041	15,803	14,238	6,306	1,655	4,651
Agricultural sciences	11,943	9,497	2,446	11,169	9,056	2,113	774	441	333
Biological sciences	56,540	46,547	9,993	52,059	44,650	7,409	4,481	1,897	2,584
Anatomy	1,027	977	50	1,027	977	50	0	0	0
Biochemistry	5,528	5,188	340	5,466	5,151	315	62	37	25
Biology	14,395	10,102	4,293	11,172	8,637	2,535	3,223	1,465	1,758
Biometry epidemiology	2,665	1,990	675	2,665	1,990	675	0	0	0
Biophysics	780	755	25	780	755	25	0	0	0
Botany	2,742	2,371	371	2,733	2,369	364	9	2	7
Cell biology	3,391	3,206	185	3,379	3,203	176	12	3	9
Ecology	1,410	1,057	353	1,251	1,040	211	159	17	142
Entomology/parasitology	1,247	1,039	208	1,247	1,039	208	0	0	0
Genetics	1,785	1,690	95	1,733	1,640	93	52	50	2
Microbio., immunology, & virology	5,053	4,593	460	5,022	4,586	436	31	7	24
Nutrition	4,320	2,972	1,348	3,870	2,834	1,036	450	138	312
Pathology	1,617	1,331	286	1,527	1,299	228	90	32	58
Pharmacology	2,655	2,510	145	2,653	2,509	144	2	1	1
Physiology	2,372	2,220	152	2,372	2,220	152	0	0	0
Zoology	2,120	1,747	373	2,115	1,743	372	5	4	1
Biosciences, n.e.c.	3,433	2,799	634	3,047	2,658	389	386	141	245
Psychology	55,219	34,953	20,266	39,892	28,256	11,636	15,327	6,697	8,630
Psychology, general	23,833	13,381	10,452	16,437	10,663	5,774	7,396	2,718	4,678
Clinical psychology	19,010	12,927	6,083	12,843	9,846	2,997	6,167	3,081	3,086
Psychology, n.e.c.	12,376	8,645	3,731	10,612	7,747	2,865	1,764	898	866
Social sciences	89,447	55,622	33,825	76,647	51,940	24,707	12,800	3,682	9,118
Agricultural economics	2,415	1,963	452	2,334	1,910	424	81	53	28
Anthropology (cultural & social)	7,378	5,429	1,949	7,081	5,319	1,762	297	110	187
Economics (except agricultural)	13,314	10,107	3,207	12,320	9,745	2,575	994	362	632
Geography	4,378	3,026	1,352	3,649	2,731	918	729	295	434
History and philosophy of science	369	334	35	369	334	35	0	0	0
Linguistics	3,387	2,571	816	2,972	2,468	504	415	103	312
Political science	35,555	18,441	17,114	29,019	16,819	12,200	6,536	1,622	4,914
Sociology	9,404	6,563	2,841	8,147	6,087	2,060	1,257	476	781
Sociology/anthropology	1,019	681	338	925	655	270	94	26	68
Social sciences, n.e.c.	12,228	6,507	5,721	9,831	5,872	3,959	2,397	635	1,762
Engineering, total	117,106	73,962	43,144	108,680	71,694	36,986	8,426	2,268	6,158
Aerospace engineering	3,948	3,266	682	3,913	3,231	682	35	35	0
Agricultural engineering	1,018	835	183	1,018	835	183	0	0	0
Biomedical engineering	2,672	2,269	403	2,610	2,234	376	62	35	27
Chemical engineering	7,496	6,021	1,475	7,338	5,950	1,388	158	71	87
Civil engineering	19,675	12,497	7,178	18,024	11,981	6,043	1,651	516	1,135
Electrical engineering	35,377	20,438	14,939	32,252	19,706	12,546	3,125	732	2,393
Engineering science	2,185	1,399	786	2,153	1,397	756	32	2	30
Industrial eng./management sci.	13,648	5,882	7,766	12,490	5,658	6,832	1,158	224	934
Mechanical engineering	18,474	12,441	6,033	17,404	12,152	5,252	1,070	289	781
Metallurgical/materials eng.	5,367	4,255	1,112	5,220	4,232	988	147	23	124
Mining engineering	427	311	116	411	301	110	16	10	6
Nuclear engineering	1,306	1,070	236	1,306	1,070	236	0	0	0
Petroleum engineering	725	579	146	711	569	142	14	10	4
Engineering, n.e.c.	4,788	2,699	2,089	3,830	2,378	1,452	958	321	637

See explanatory information, if any, and SOURCE(S) at end of table.

Table 2. Science and engineering graduate students, by field and enrollment status, in all institutions according to highest degree granted: 1993

Field	In all institutions			Doctorate-granting			Master's-granting		
	Total	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time
Total, health fields	68,626	35,604	33,022	56,884	31,237	25,647	11,742	4,367	7,375
Medical fields	14,102	8,797	5,305	13,142	8,519	4,623	960	278	682
Anesthesiology	719	578	141	494	473	21	225	105	120
Cardiology	11	11	0	11	11	0	0	0	0
Oncology/cancer research	212	206	6	212	206	6	0	0	0
Endocrinology	63	62	1	63	62	1	0	0	0
Gastroenterology	1	1	0	1	1	0	0	0	0
Hematology	3	3	0	3	3	0	0	0	0
Neurology	1,311	1,253	58	1,311	1,253	58	0	0	0
Obstetrics and gynecology	11	11	0	11	11	0	0	0	0
Ophthalmology	19	13	6	19	13	6	0	0	0
Otorhinolaryngology	1	1	0	1	1	0	0	0	0
Pediatrics	196	161	35	196	161	35	0	0	0
Preventive medicine/community health	9,883	5,316	4,567	9,377	5,207	4,170	506	109	397
Psychiatry	172	52	120	103	50	53	69	2	67
Pulmonary disease	0	0	0	0	0	0	0	0	0
Radiology	287	232	55	287	232	55	0	0	0
Surgery	82	79	3	82	79	3	0	0	0
Clinical medicine, n.e.c.	1,131	818	313	971	756	215	160	62	98
Other health fields	54,524	26,807	27,717	43,742	22,718	21,024	10,782	4,089	6,693
Dental sciences	1,135	1,005	130	1,135	1,005	130	0	0	0
Nursing	24,824	6,802	18,022	20,609	5,962	14,647	4,215	840	3,375
Pharmaceutical sciences	2,871	2,133	738	2,851	2,130	721	20	3	17
Speech pathology/audiology	10,764	8,125	2,639	7,863	6,142	1,721	2,901	1,983	918
Veterinary sciences	877	693	184	853	673	180	24	20	4
Health related, n.e.c.	14,053	8,049	6,004	10,431	6,806	3,625	3,622	1,243	2,379

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 3. Science and engineering graduate students in all institutions, by field and citizenship and by racial/ethnic background of U.S. citizens: 1993

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, all surveyed fields	506,678	20,512	1,615	27,214	16,121	310,735	20,370	110,111
Total, science and engineering fields	438,052	17,181	1,318	24,401	13,446	258,278	17,901	105,527
Sciences, total	320,946	14,613	1,106	15,290	10,749	200,709	12,174	66,305
Physical sciences	35,395	843	81	1,974	751	18,636	870	12,240
Astronomy	880	12	3	24	13	580	31	217
Chemistry	20,142	594	54	1,185	472	10,678	491	6,668
Physics	13,907	211	22	734	256	7,068	337	5,279
Physical sciences, n.e.c.	466	26	2	31	10	310	11	76
Earth, atmospheric, & ocean sciences	15,891	230	46	445	354	11,232	540	3,044
Atmospheric sciences	1,112	13	2	55	15	714	16	297
Geosciences	7,784	67	27	193	157	5,386	258	1,696
Oceanography	2,653	29	3	66	90	1,739	128	598
Earth, atmos., & ocean sci., n.e.c.	4,342	121	14	131	92	3,393	138	453
Mathematical sciences	20,164	721	33	1,076	425	10,657	1,149	6,103
Computer sciences	36,347	1,170	66	3,530	693	16,863	1,977	12,048
Agricultural sciences	11,943	261	34	262	307	7,740	209	3,130
Biological sciences	56,540	1,737	157	3,523	1,649	35,157	1,458	12,859
Anatomy	1,027	30	2	86	24	598	42	245
Biochemistry	5,528	112	18	475	126	2,831	101	1,865
Biology	14,395	616	47	850	560	9,583	649	2,090
Biometry/epidemiology	2,665	108	14	187	130	1,577	43	606
Biophysics	780	18	0	83	9	441	13	216
Botany	2,742	52	8	81	38	1,641	32	890
Cell biology	3,391	57	7	284	83	2,172	46	742
Ecology	1,410	14	6	29	36	1,084	64	177
Entomology/parasitology	1,247	23	1	50	34	758	29	352
Genetics	1,785	36	1	92	30	1,220	24	382
Microbio., immunology, & virology	5,053	150	11	369	163	3,044	68	1,248
Nutrition	4,320	155	14	207	104	2,452	78	1,310
Pathology	1,617	47	3	105	40	990	54	378
Pharmacology	2,655	99	12	206	61	1,594	49	634
Physiology	2,372	93	1	178	68	1,366	45	621
Zoology	2,120	18	4	56	50	1,653	44	295
Biosciences, n.e.c.	3,433	109	8	185	93	2,153	77	808
Psychology	55,219	3,304	296	1,477	2,601	43,254	2,380	1,907
Social sciences	89,447	6,347	393	3,003	3,969	57,170	3,591	14,974
Agricultural economics	2,415	78	4	41	70	1,149	42	1,031
Anthropology (cultural & social)	7,378	176	80	148	264	5,592	305	813
Economics (except agricultural)	13,314	404	19	713	339	6,094	563	5,182
Geography	4,378	111	24	107	109	3,364	146	517
Linguistics	3,387	62	4	144	172	1,828	132	1,045
Political science	35,555	3,254	140	1,079	1,897	24,226	1,404	3,555
Sociology	9,404	861	58	334	468	5,838	413	1,432
Sociology/anthropology	1,019	123	4	7	19	731	20	115
Social sciences, other	12,597	1,278	60	430	631	8,348	566	1,284
Engineering, total	117,106	2,568	212	9,111	2,697	57,569	5,727	39,222
Aerospace engineering	3,948	56	8	224	71	2,077	310	1,202
Agricultural engineering	1,018	10	0	47	7	467	4	483
Biomedical engineering	2,672	45	2	249	78	1,445	75	778
Chemical engineering	7,496	159	14	528	180	3,385	146	3,084
Civil engineering	19,675	393	44	1,143	551	10,462	724	6,358
Electrical engineering	35,377	865	44	3,759	837	15,694	1,746	12,432
Engineering science	2,185	44	2	141	40	1,223	68	667
Industrial eng./management sci.	13,648	444	37	894	334	7,455	1,048	3,436
Mechanical engineering	18,474	336	30	1,335	385	9,029	1,111	6,248
Metallurgical/materials eng.	5,367	73	4	335	76	2,543	171	2,165
Nuclear engineering	1,306	15	3	54	29	731	7	467
Engineering, other	5,940	128	24	402	109	3,058	317	1,902
Total, health fields	68,626	3,331	297	2,813	2,675	52,457	2,469	4,584
Clinical fields	2,908	86	11	262	77	1,777	246	449
Dental sciences	1,135	22	1	84	51	711	10	256
Nursing	24,824	1,270	117	670	661	21,000	716	390
Pharmaceutical sciences	2,871	110	3	254	89	1,259	98	1,058
Preventive medicine/community health	9,883	745	46	723	762	6,193	296	1,118
Speech pathology/audiology	10,764	436	68	178	378	8,978	349	377
Veterinary sciences	877	36	1	30	20	538	8	244
Other health fields	15,364	626	50	612	637	12,001	746	692

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 4. Full-time science and engineering graduate students, by source and type of major support, in all institutions according to highest degree granted: 1993

Highest degree granted and source of major support	Total	Fellowships	Traineeships	Research assistant-ships	Teaching assistant-ships	Other types of support
	In all institutions					
Total, all sources	330,249	29,335	15,317	89,729	66,996	128,872
Federal, total	67,327	7,525	10,116	44,227	890	4,569
Dept of Defense	9,607	656	122	6,175	0	2,654
Dept of HHS, total	21,865	1,332	7,848	12,049	202	434
NIH	18,072	1,151	5,102	11,328	175	316
Other HHS	3,793	181	2,746	721	27	118
NSF	13,410	2,307	164	10,701	138	100
USDA	3,342	127	48	3,030	49	88
All other Federal	19,103	3,103	1,934	12,272	501	1,293
Institutional support	129,462	15,019	4,242	31,810	65,455	12,936
Other outside support, total	26,932	6,791	959	13,692	651	4,839
All other U.S.	21,358	4,038	640	12,813	651	3,216
Foreign	5,574	2,753	319	879	0	1,623
Self support	106,528	0	0	0	0	106,528
	Doctorate granting					
Total, all sources	307,181	28,735	14,733	87,633	64,776	111,304
Federal, total	65,998	7,371	9,783	43,772	838	4,234
Dept of Defense	9,481	651	100	6,106	0	2,624
Dept of HHS, total	21,506	1,313	7,623	11,970	189	411
NIH	17,903	1,135	5,050	11,249	173	296
Other HHS	3,603	178	2,573	721	16	115
NSF	13,285	2,296	160	10,603	134	92
USDA	3,288	117	48	2,994	42	87
All other Federal	18,438	2,994	1,852	12,099	473	1,020
Institutional support	124,079	14,673	4,020	30,259	63,313	11,814
Other outside support, total	26,473	6,691	930	13,602	625	4,625
All other U.S.	20,949	3,954	616	12,726	625	3,028
Foreign	5,524	2,737	314	876	0	1,597
Self support	90,631	0	0	0	0	90,631
	Masters granting					
Total, all sources	23,068	600	584	2,096	2,220	17,568
Federal, total	1,329	154	333	455	52	335
Dept of Defense	126	5	22	69	0	30
Dept of HHS, total	359	19	225	79	13	23
NIH	169	16	52	79	2	20
Other HHS	190	3	173	0	11	3
NSF	125	11	4	98	4	8
USDA	54	10	0	36	7	1
All other Federal	665	109	82	173	28	273
Institutional support	5,383	346	222	1,551	2,142	1,122
Other outside support, total	459	100	29	90	26	214
All other U.S.	409	84	24	87	26	188
Foreign	50	16	5	3	0	26
Self support	15,897	0	0	0	0	15,897

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 5. Science and engineering graduate students in all institutions, by enrollment status and field: 1975-93

Year	Total, all surveyed fields	Sciences								
		Sciences, total	Physical sciences	Earth, atmospheric, & ocean sciences	Mathematical sciences	Computer sciences	Agricultural sciences	Biological sciences	Psychology	Social sciences
	Total enrollment									
1975	328,725	234,935	26,310	12,079	16,892	8,415	10,695	46,421	36,191	77,932
1976	333,850	238,903	26,631	12,819	17,071	8,627	11,280	47,759	37,458	77,258
1977	345,510	243,134	26,855	13,455	16,052	9,108	11,661	49,253	38,617	78,133
1978[1]	345,187	239,966	26,379	13,484	15,077	9,925	11,753	48,600	38,188	76,560
1979	357,712	247,465	26,695	13,737	15,046	11,690	12,230	48,216	39,766	80,085
1980	367,183	251,417	26,934	14,051	15,334	13,578	12,448	47,607	40,610	80,855
1981	375,253	252,572	27,357	14,266	15,902	16,437	12,340	46,649	40,666	78,955
1982	382,337	255,230	28,186	15,020	17,178	19,812	12,561	45,988	40,073	76,412
1983	390,513	255,917	29,453	15,453	17,380	23,333	12,402	45,660	40,905	71,331
1984[2]	394,901	257,179	30,056	15,505	17,459	25,526	12,203	45,783	40,931	69,716
1985[2]	404,213	262,219	30,981	15,420	17,572	29,769	11,541	46,128	40,721	70,087
1986[2]	415,700	266,356	32,246	15,066	17,967	31,349	11,449	46,780	41,241	70,258
1987[2]	421,651	269,488	32,727	14,371	18,524	32,051	11,106	46,770	42,612	71,327
1988	424,974	272,635	32,962	13,905	19,096	32,227	11,128	47,585	44,084	71,648
1989	435,083	279,183	33,616	13,668	19,284	32,482	11,192	48,872	45,951	74,118
1990	452,937	290,244	34,130	14,024	19,794	34,371	11,301	50,017	48,654	77,953
1991	472,134	299,917	34,796	14,532	19,970	34,698	11,503	51,812	51,879	80,727
1992	494,459	313,327	35,415	15,413	20,367	36,333	11,820	54,231	53,917	85,831
1993	506,678	320,946	35,395	15,891	20,164	36,347	11,943	56,540	55,219	89,447
	Full-time									
1975	219,860	164,711	21,916	9,557	10,694	4,473	8,886	36,893	24,105	48,187
1976	223,539	168,072	22,252	10,091	10,952	4,748	9,439	37,928	25,643	47,019
1977	226,864	169,368	22,505	10,424	10,365	4,604	9,701	38,428	25,703	47,638
1978[1]	225,072	165,537	22,158	10,511	9,804	4,926	9,598	38,122	24,963	45,455
1979	231,892	169,163	22,535	10,625	9,667	5,853	9,954	38,002	25,848	46,679
1980	238,511	171,886	22,917	10,871	9,901	6,587	10,161	37,700	26,671	47,078
1981	242,155	172,329	23,307	10,934	10,153	7,445	10,298	37,286	26,570	46,336
1982	244,770	172,123	24,038	11,319	10,814	9,171	10,117	36,704	25,667	44,293
1983	252,050	175,514	25,204	11,968	10,957	10,600	9,952	36,756	26,561	43,516
1984[2]	254,021	175,896	25,852	11,734	11,311	11,436	9,881	37,135	25,969	42,578
1985[2]	257,411	178,171	26,669	11,334	11,817	13,861	9,240	37,007	25,335	42,908
1986[2]	266,265	182,696	27,762	11,249	12,390	15,020	9,338	37,816	26,255	42,866
1987[2]	271,150	185,304	28,412	10,435	13,044	15,336	9,091	38,239	27,256	43,491
1988	275,366	187,722	28,574	10,199	13,513	15,133	9,123	39,214	28,224	43,742
1989	282,813	192,585	29,207	10,027	13,683	15,606	9,076	40,361	29,478	45,147
1990	292,958	199,529	29,492	10,262	13,867	16,690	9,092	40,959	30,791	48,376
1991	307,249	206,286	30,125	10,395	14,258	16,538	9,291	42,718	32,443	50,518
1992	322,895	216,302	30,675	11,011	14,681	17,498	9,442	44,432	34,350	54,213
1993	330,249	220,683	30,619	11,403	14,584	17,458	9,497	46,547	34,953	55,622
	Part-time									
1975	108,865	70,224	4,394	2,522	6,198	3,942	1,809	9,528	12,086	29,745
1976	110,311	70,831	4,379	2,728	6,119	3,879	1,841	9,831	11,815	30,239
1977	118,646	73,766	4,350	3,031	5,687	4,504	1,960	10,825	12,914	30,495
1978[1]	120,115	74,429	4,221	2,973	5,273	4,992	2,155	10,478	12,225	31,105
1979	125,820	78,302	4,160	3,112	5,379	5,837	2,276	10,214	13,918	33,406
1980	128,672	79,531	4,017	3,180	5,433	6,991	2,287	9,907	13,939	33,777
1981	133,098	80,243	4,050	3,332	5,749	8,992	2,042	9,363	14,096	32,619
1982	137,567	83,107	4,148	3,701	6,364	10,641	2,444	9,284	14,406	32,119
1983	138,463	80,403	4,249	3,485	6,423	12,733	2,450	8,904	14,344	27,815
1984[2]	140,880	81,283	4,204	3,771	6,148	14,090	2,322	8,648	14,962	27,138
1985[2]	146,802	84,048	4,312	4,086	5,755	15,908	2,301	9,121	15,386	27,179
1986[2]	149,435	83,660	4,484	3,817	5,577	16,329	2,111	8,964	14,986	27,392
1987[2]	150,501	84,184	4,315	3,936	5,480	16,715	2,015	8,531	15,356	27,836
1988	149,608	84,913	4,388	3,706	5,583	17,094	2,005	8,371	15,860	27,906
1989	152,270	86,598	4,409	3,641	5,601	16,876	2,116	8,511	16,473	28,971
1990	159,979	90,715	4,638	3,762	5,927	17,681	2,209	9,058	17,863	29,577
1991	164,885	93,631	4,671	4,137	5,712	18,160	2,212	9,094	19,436	30,209
1992	171,564	97,025	4,740	4,402	5,686	18,835	2,378	9,799	19,567	31,618
1993	176,429	100,263	4,776	4,488	5,580	18,889	2,446	9,993	20,266	33,825

See explanatory information, if any, and SOURCE(S) at end of table.

Table 5. Science and engineering graduate students in all institutions, by enrollment status and field: 1975-93

Year	Engineering									Health fields
	Engineering, total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical & materials engineering	Other engineering	
	Total enrollment									
1975	68,271	1,670	5,034	12,560	16,320	11,663	8,601	2,352	10,071	25,519
1976	66,657	1,477	5,205	11,995	15,926	10,687	8,313	2,375	10,679	28,290
1977	68,685	1,518	5,201	12,335	17,406	10,438	8,722	2,559	10,506	33,691
1978[1]	68,661	1,460	5,751	12,771	17,365	9,569	8,704	2,569	10,472	36,560
1979	71,713	1,481	5,605	12,822	17,715	10,714	9,251	2,756	11,369	38,534
1980	74,289	1,737	6,015	13,097	19,132	9,675	9,888	2,910	11,835	41,477
1981	79,534	1,883	6,496	14,089	20,113	9,716	10,618	3,125	13,494	43,147
1982	83,666	1,941	7,189	14,122	21,927	9,556	11,467	3,124	14,340	43,441
1983	91,097	2,305	7,563	14,910	25,295	9,225	12,911	3,447	15,441	43,499
1984[2]	92,696	2,340	7,373	15,192	26,388	9,266	13,855	3,657	14,625	45,026
1985[2]	95,982	2,538	7,150	14,902	28,203	10,490	14,157	3,943	14,599	46,012
1986[2]	101,856	2,804	7,012	14,976	29,969	11,511	15,713	4,208	15,663	47,488
1987[2]	103,937	3,015	7,111	14,682	31,399	12,204	16,366	4,366	14,794	48,226
1988	102,944	3,223	6,618	14,811	32,035	11,375	16,186	4,337	14,359	49,395
1989	104,044	3,524	6,460	14,909	33,257	11,065	16,212	4,594	14,023	51,856
1990	107,622	3,934	6,735	15,542	33,722	11,239	16,788	4,949	14,713	55,071
1991	113,642	4,120	7,127	17,398	35,182	12,669	17,730	5,168	14,248	58,575
1992	118,117	4,036	7,397	19,557	36,474	13,522	18,637	5,520	12,974	63,015
1993	117,106	3,948	7,496	19,675	35,377	13,648	18,474	5,367	13,121	68,626
	Full-time									
1975	37,762	1,245	3,515	7,363	8,278	4,152	4,931	1,787	6,491	17,387
1976	36,882	1,165	3,691	7,025	8,147	3,578	4,919	1,860	6,497	18,585
1977	37,156	1,187	3,873	7,094	8,528	3,343	4,883	1,951	6,297	20,340
1978[1]	37,913	1,138	4,258	7,673	8,512	3,256	4,952	1,973	6,151	21,622
1979	39,967	1,152	4,218	7,623	9,039	3,743	5,428	2,135	6,629	22,762
1980	42,627	1,327	4,490	7,958	9,963	3,736	5,841	2,254	7,058	23,998
1981	45,724	1,483	4,989	8,799	10,450	3,602	6,422	2,454	7,525	24,102
1982	49,754	1,522	5,608	9,381	11,533	3,806	7,267	2,478	8,159	22,893
1983	53,906	1,840	5,869	9,804	13,265	3,286	8,330	2,704	8,808	22,630
1984[2]	55,165	1,854	5,734	10,086	13,925	3,391	8,698	2,872	8,605	22,960
1985[2]	55,895	1,994	5,546	9,749	14,799	3,455	8,875	3,093	8,384	23,345
1986[2]	60,164	2,154	5,594	9,971	16,290	3,805	9,789	3,370	9,191	23,405
1987[2]	61,931	2,372	5,674	9,628	17,101	4,155	10,230	3,436	9,335	23,915
1988	63,066	2,533	5,359	9,946	17,706	4,294	10,426	3,466	9,336	24,578
1989	64,408	2,772	5,282	9,964	18,466	4,664	10,464	3,720	9,076	25,820
1990	65,998	3,010	5,443	10,128	18,675	4,779	10,816	3,936	9,211	27,431
1991	71,099	3,325	5,788	11,328	19,904	5,607	11,687	4,066	9,394	29,864
1992	74,555	3,306	5,946	12,439	21,010	6,088	12,433	4,281	9,052	32,038
1993	73,962	3,266	6,021	12,497	20,438	5,882	12,441	4,255	9,162	35,604
	Part-time									
1975	30,509	425	1,519	5,197	8,042	7,511	3,670	565	3,580	8,132
1976	29,775	312	1,514	4,970	7,779	7,109	3,394	515	4,182	9,705
1977	31,529	331	1,328	5,241	8,878	7,095	3,839	608	4,209	13,351
1978[1]	30,748	322	1,493	5,098	8,863	6,313	3,752	596	4,321	14,938
1979	31,746	329	1,387	5,199	8,676	6,971	3,823	621	4,740	15,772
1980	31,662	410	1,525	5,139	9,169	5,939	4,047	656	4,777	17,479
1981	33,810	400	1,507	5,290	9,663	6,114	4,196	671	5,969	19,045
1982	33,912	419	1,581	4,741	10,394	5,750	4,200	646	6,181	20,548
1983	37,191	465	1,694	5,106	12,030	5,939	4,581	743	6,633	20,869
1984[2]	37,531	486	1,639	5,106	12,463	5,875	5,157	785	6,020	22,066
1985[2]	40,087	544	1,604	5,153	13,404	7,035	5,282	850	6,215	22,667
1986[2]	41,692	650	1,418	5,005	13,679	7,706	5,924	838	6,472	24,083
1987[2]	42,006	643	1,437	5,054	14,298	8,049	6,136	930	5,459	24,311
1988	39,878	690	1,259	4,865	14,329	7,081	5,760	871	5,023	24,817
1989	39,636	752	1,178	4,945	14,791	6,401	5,748	874	4,947	26,036
1990	41,624	924	1,292	5,414	15,047	6,460	5,972	1,013	5,502	27,640
1991	42,543	795	1,339	6,070	15,278	7,062	6,043	1,102	4,854	28,711
1992	43,562	730	1,451	7,118	15,464	7,434	6,204	1,239	3,922	30,977
1993	43,144	682	1,475	7,178	14,939	7,766	6,033	1,112	3,959	33,022

[1] Master's-granting institutions were not surveyed in 1978; totals include estimates based on 1977 and 1979 data.

[2] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984 through 1987. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 6. Science and engineering graduate students in all institutions, by field: 1986-93

Field	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	415,700	421,651	424,974	435,083	452,937	472,134	494,459	506,678
Total, science and engineering fields	368,212	373,425	375,579	383,227	397,866	413,559	431,444	438,052
Sciences, total	266,356	269,488	272,635	279,183	290,244	299,917	313,327	320,946
Physical sciences	32,246	32,727	32,962	33,616	34,130	34,796	35,415	35,395
Astronomy	689	719	731	789	810	829	869	880
Chemistry	18,744	18,827	18,579	18,828	19,118	19,407	19,929	20,142
Physics	12,437	12,807	13,308	13,657	13,868	14,139	14,188	13,907
Physical sciences, n.e.c.	376	374	344	342	334	421	429	466
Earth, atmospheric, & ocean sciences	15,066	14,371	13,905	13,668	14,024	14,532	15,413	15,891
Atmospheric sciences	961	952	940	912	929	968	1,089	1,112
Geosciences	9,819	8,998	8,463	8,052	7,692	7,567	7,744	7,784
Oceanography	2,128	2,127	2,033	2,207	2,333	2,386	2,530	2,653
Earth, atmos., & ocean sci., n.e.c.	2,158	2,294	2,469	2,497	3,070	3,611	4,050	4,342
Mathematical sciences	17,967	18,524	19,096	19,284	19,794	19,970	20,367	20,164
Mathematics & applied mathematics	15,633	16,031	16,509	16,760	17,116	17,224	17,416	17,089
Statistics	2,334	2,493	2,587	2,524	2,678	2,746	2,951	3,075
Computer sciences	31,349	32,051	32,227	32,482	34,371	34,698	36,333	36,347
Agricultural sciences	11,449	11,106	11,128	11,192	11,301	11,503	11,820	11,943
Biological sciences	46,780	46,770	47,585	48,872	50,017	51,812	54,231	56,540
Anatomy	973	1,016	1,056	1,078	1,000	1,051	1,030	1,027
Biochemistry	4,873	4,813	4,921	5,082	5,039	5,201	5,376	5,528
Biology	12,678	12,331	12,393	12,761	13,027	13,301	13,890	14,395
Biometry epidemiology	1,434	1,556	1,682	1,722	1,871	2,032	2,368	2,665
Biophysics	547	591	592	655	642	697	751	780
Botany	3,149	3,005	2,936	2,844	2,761	2,722	2,718	2,742
Cell biology	1,716	1,964	2,078	2,234	2,555	2,809	3,093	3,391
Ecology	1,022	963	999	1,084	1,136	1,180	1,301	1,410
Entomology parasitology	1,306	1,244	1,240	1,181	1,173	1,171	1,193	1,247
Genetics	1,262	1,314	1,289	1,365	1,408	1,520	1,639	1,785
Microbio., immunology, & virology	4,371	4,452	4,773	4,827	4,873	4,928	4,972	5,053
Nutrition	4,259	4,158	4,132	4,164	4,172	4,152	4,150	4,320
Pathology	1,323	1,381	1,343	1,382	1,370	1,475	1,487	1,617
Pharmacology	2,078	2,072	2,124	2,267	2,353	2,432	2,538	2,655
Physiology	2,220	2,213	2,220	2,206	2,236	2,332	2,317	2,372
Zoology	2,075	2,104	2,029	2,083	2,104	2,191	2,139	2,120
Biosciences, n.e.c.	1,494	1,593	1,778	1,937	2,297	2,618	3,269	3,433
Psychology	41,241	42,612	44,084	45,951	48,654	51,879	53,917	55,219
Psychology, general	118	267	15,477	17,118	18,498	21,353	23,037	23,833
Clinical psychology	40,529	41,726	20,801	19,682	20,404	19,844	18,937	19,010
Psychology, n.e.c.	594	619	7,806	9,151	9,752	10,682	11,943	12,376
Social sciences	70,258	71,327	71,648	74,118	77,953	80,727	85,831	89,447
Agricultural economics	2,248	2,203	2,259	2,276	2,273	2,364	2,522	2,415
Anthropology (cultural & social)	5,805	5,835	5,945	6,128	6,479	6,731	7,123	7,378
Economics (except agricultural)	12,103	11,998	12,025	12,127	12,312	12,695	13,239	13,314
Geography	3,055	3,223	3,208	3,479	3,530	3,760	4,102	4,378
History and philosophy of science	266	294	288	304	331	337	360	369
Linguistics	3,109	3,282	3,243	3,286	3,404	3,425	3,277	3,387
Political science	27,178	27,488	27,781	29,208	30,624	31,739	33,912	35,555
Sociology	6,532	6,986	7,087	7,393	7,797	8,374	8,978	9,404
Sociology anthropology	1,021	982	991	1,022	1,199	950	1,044	1,019
Social sciences, n.e.c.	8,941	9,036	8,821	8,895	10,004	10,352	11,274	12,228
Engineering, total	101,856	103,937	102,944	104,044	107,622	113,642	118,117	117,106
Aerospace engineering	2,804	3,015	3,223	3,524	3,934	4,120	4,036	3,948
Agricultural engineering	1,071	1,080	1,052	1,043	946	986	1,008	1,018
Biomedical engineering	1,534	1,674	1,752	1,916	2,136	2,239	2,537	2,672
Chemical engineering	7,012	7,111	6,618	6,460	6,735	7,127	7,397	7,496
Civil engineering	14,976	14,682	14,811	14,909	15,542	17,398	19,557	19,675
Electrical engineering	29,969	31,399	32,035	33,257	33,722	35,182	36,474	35,377
Engineering science	2,362	2,343	2,386	2,077	2,020	2,154	2,218	2,185
Industrial eng., management sci.	11,511	12,204	11,375	11,065	11,239	12,669	13,522	13,648
Mechanical engineering	15,713	16,366	16,186	16,212	16,788	17,730	18,637	18,474
Metallurgical materials eng.	4,208	4,366	4,337	4,594	4,949	5,168	5,520	5,367
Mining engineering	512	513	489	418	437	489	437	427
Nuclear engineering	1,265	1,279	1,303	1,323	1,278	1,282	1,286	1,306
Petroleum engineering	747	818	742	665	670	705	737	725
Engineering, n.e.c.	8,172	7,087	6,635	6,581	7,226	6,393	4,751	4,788

See explanatory information, if any, and SOURCE(S) at end of table

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Table 6. Science and engineering graduate students in all institutions, by field: 1986-93

Field	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, health fields	47,488	48,226	49,395	51,856	55,071	58,575	63,015	68,626
Medical fields	9,244	9,809	10,063	10,207	10,910	11,655	12,531	14,102
Anesthesiology	123	178	274	355	391	529	708	719
Cardiology	3	0	0	0	0	2	8	11
Oncology/cancer research	69	81	89	104	113	156	200	212
Endocrinology	57	63	70	82	74	66	71	63
Gastroenterology	4	0	0	0	1	0	0	1
Hematology	9	7	6	4	4	4	5	3
Neurology	391	503	612	744	844	1,003	1,149	1,311
Obstetrics and gynecology	4	8	9	7	5	10	3	11
Ophthalmology	18	19	51	43	37	32	27	19
Otorhinolaryngology	6	8	6	9	4	3	0	1
Pediatrics	163	218	227	136	140	153	154	196
Preventive medicine/community health	7,222	7,556	7,578	7,597	8,127	8,371	8,671	9,883
Psychiatry	151	157	154	111	122	104	147	172
Pulmonary disease	3	2	3	2	0	0	0	0
Radiology	220	183	208	192	196	233	252	287
Surgery	48	60	64	72	65	69	76	82
Clinical medicine, n.e.c.	753	766	712	749	787	920	1,060	1,131
Other health fields	38,244	38,417	39,332	41,649	44,161	46,920	50,484	54,524
Dental sciences	947	1,062	1,083	1,004	956	1,016	1,121	1,135
Nursing	18,398	18,444	18,862	19,689	21,194	22,012	23,233	24,824
Pharmaceutical sciences	2,682	2,607	2,613	2,787	2,889	2,968	2,804	2,871
Speech pathology/audiology	7,774	7,314	7,479	7,911	8,354	8,945	9,791	10,764
Veterinary sciences	630	731	752	801	900	894	942	877
Health related, n.e.c.	7,813	8,259	8,543	9,457	9,868	11,085	12,593	14,053

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 7. Male science and engineering graduate students in all institutions, by field: 1986-93

Field	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	264,845	268,031	265,597	268,862	275,934	285,242	294,586	295,752
Total, science and engineering fields	253,756	256,196	254,150	256,963	263,644	272,200	280,760	280,559
Sciences, total	164,258	165,215	164,355	166,547	170,712	174,293	179,898	181,188
Physical sciences	25,384	25,613	25,465	25,815	26,050	26,216	26,559	26,179
Astronomy	568	601	591	649	645	657	683	682
Chemistry	13,718	13,649	13,112	13,158	13,250	13,145	13,367	13,288
Physics	10,861	11,134	11,557	11,789	11,943	12,146	12,233	11,919
Physical sciences, n.e.c.	237	229	205	219	212	268	276	290
Earth, atmospheric, & ocean sciences	11,119	10,592	10,081	9,800	9,891	10,058	10,526	10,799
Atmospheric sciences	782	784	777	734	744	778	848	887
Geosciences	7,463	6,834	6,368	6,089	5,770	5,559	5,667	5,672
Oceanography	1,461	1,493	1,388	1,482	1,552	1,540	1,571	1,637
Earth, atmos., & ocean sci., n.e.c.	1,413	1,481	1,548	1,495	1,825	2,181	2,440	2,603
Mathematical sciences	12,481	12,921	13,315	13,294	13,589	13,667	13,814	13,466
Computer sciences	23,497	24,036	24,033	24,494	26,149	26,424	27,905	27,926
Agricultural sciences	8,496	8,152	8,028	8,044	7,974	7,940	8,053	7,862
Biological sciences	26,312	26,331	26,318	26,633	26,963	27,662	28,736	29,464
Anatomy	560	578	598	598	542	550	537	534
Biochemistry	2,989	2,923	2,925	3,064	2,974	3,070	3,158	3,188
Biology	7,148	7,060	6,939	7,009	7,078	7,084	7,303	7,553
Biometry/epidemiology	666	746	768	738	874	920	1,037	1,135
Biophysics	410	450	443	493	478	515	549	554
Botany	2,014	1,854	1,814	1,754	1,676	1,646	1,656	1,632
Cell biology	1,044	1,199	1,233	1,290	1,435	1,528	1,687	1,809
Ecology	638	588	602	644	667	662	712	746
Entomology/parasitology	948	906	881	817	815	830	839	847
Genetics	665	673	660	675	681	761	797	853
Microbio., immunology, & virology	2,427	2,454	2,616	2,588	2,553	2,576	2,606	2,594
Nutrition	1,269	1,304	1,191	1,197	1,231	1,236	1,203	1,225
Pathology	782	797	789	803	784	837	826	858
Pharmacology	1,265	1,229	1,277	1,298	1,329	1,302	1,352	1,410
Physiology	1,365	1,378	1,357	1,313	1,303	1,366	1,366	1,389
Zoology	1,304	1,311	1,245	1,291	1,269	1,307	1,311	1,260
Biosciences, n.e.c.	818	881	980	1,061	1,274	1,472	1,797	1,877
Psychology	15,377	15,683	15,543	15,796	15,963	16,694	16,767	16,827
Social sciences	41,592	41,887	41,572	42,671	44,133	45,632	47,538	48,665
Agricultural economics	1,747	1,696	1,713	1,694	1,674	1,728	1,810	1,667
Anthropology (cultural & social)	2,460	2,482	2,499	2,548	2,688	2,778	2,876	2,976
Economics (except agricultural)	9,095	8,987	8,927	8,887	8,940	9,138	9,439	9,444
Geography	2,071	2,130	2,153	2,295	2,326	2,442	2,671	2,796
Linguistics	1,252	1,305	1,296	1,334	1,398	1,512	1,281	1,328
Political science	16,465	16,598	16,359	17,017	17,430	17,982	18,891	19,552
Sociology	2,972	3,144	3,248	3,396	3,507	3,759	3,834	3,846
Sociology/anthropology	482	472	443	454	502	436	475	456
Social sciences, other	5,048	5,073	4,934	5,046	5,668	5,857	6,261	6,600
Engineering, total	89,498	90,981	89,795	90,416	92,932	97,907	100,862	99,371
Aerospace engineering	2,604	2,791	2,996	3,281	3,645	3,793	3,688	3,590
Agricultural engineering	987	984	966	956	845	860	864	867
Biomedical engineering	1,188	1,276	1,310	1,442	1,589	1,651	1,920	1,976
Chemical engineering	5,973	5,957	5,543	5,431	5,589	5,870	6,003	6,000
Civil engineering	12,829	12,579	12,517	12,474	12,853	14,296	15,905	15,780
Electrical engineering	27,061	28,301	28,757	29,742	30,007	31,311	32,176	31,056
Engineering science	2,065	2,056	2,119	1,829	1,721	1,866	1,913	1,880
Industrial eng./management sci.	9,423	9,967	9,287	8,959	9,107	10,319	10,871	11,051
Mechanical engineering	14,554	15,070	14,774	14,814	15,346	16,219	16,939	16,700
Metallurgical/materials eng.	3,533	3,637	3,581	3,784	4,052	4,177	4,446	4,341
Nuclear engineering	1,142	1,151	1,176	1,182	1,123	1,105	1,100	1,121
Engineering, other	8,139	7,212	6,769	6,522	7,055	6,440	5,037	5,009
Total, health fields	11,089	11,835	11,447	11,899	12,290	13,042	13,826	15,193
Clinical fields	767	842	922	955	1,017	1,150	1,291	1,360
Dental sciences	736	777	788	713	677	717	772	786
Nursing	815	1,095	873	1,036	1,017	1,128	1,167	1,286
Pharmaceutical sciences	1,711	1,587	1,549	1,649	1,748	1,729	1,621	1,592
Preventive medicine/community health	3,041	3,377	3,120	2,854	3,148	3,232	3,297	3,843
Speech pathology/audiology	848	688	744	719	736	708	777	858
Veterinary sciences	394	453	452	470	512	528	536	470
Other health fields	2,777	3,016	2,999	3,503	3,435	3,850	4,365	4,998

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 8. Female science and engineering graduate students in all institutions, by field: 1986-93

Field	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	150,855	153,620	159,377	166,221	177,003	186,892	199,873	210,926
Total, science and engineering fields	114,456	117,229	121,429	126,264	134,222	141,359	150,684	157,493
Sciences, total	102,098	104,273	108,280	112,636	119,532	125,624	133,429	139,758
Physical sciences	6,862	7,114	7,497	7,801	8,080	8,580	8,856	9,216
Astronomy	121	118	140	140	165	172	186	198
Chemistry	5,026	5,178	5,467	5,670	5,868	6,262	6,562	6,854
Physics	1,576	1,673	1,751	1,868	1,925	1,993	1,955	1,988
Physical sciences, n.e.c.	139	145	139	123	122	153	153	176
Earth, atmospheric, & ocean sciences	3,947	3,779	3,824	3,868	4,133	4,474	4,887	5,092
Atmospheric sciences	179	168	163	178	185	190	241	225
Geosciences	2,356	2,164	2,095	1,963	1,922	2,008	2,077	2,112
Oceanography	667	634	645	725	781	846	959	1,016
Earth, atmos., & ocean sci., n.e.c.	745	813	921	1,002	1,245	1,430	1,610	1,739
Mathematical sciences	5,486	5,603	5,781	5,990	6,205	6,303	6,553	6,698
Computer sciences	7,852	8,015	8,194	7,988	8,222	8,274	8,428	8,421
Agricultural sciences	2,953	2,954	3,100	3,148	3,327	3,563	3,767	4,081
Biological sciences	20,468	20,439	21,267	22,239	23,054	24,150	25,495	27,076
Anatomy	413	438	458	480	458	501	493	493
Biochemistry	1,884	1,890	1,996	2,018	2,065	2,131	2,218	2,340
Biology	5,530	5,271	5,454	5,752	5,949	6,217	6,587	6,842
Biometry/epidemiology	768	810	914	984	997	1,112	1,331	1,530
Biophysics	137	141	149	162	164	182	202	226
Botany	1,135	1,151	1,122	1,090	1,085	1,076	1,062	1,110
Cell biology	672	765	845	944	1,120	1,281	1,406	1,582
Ecology	384	375	397	440	469	518	589	664
Entomology/parasitology	358	338	359	364	358	341	354	400
Genetics	597	641	629	690	727	759	842	932
Microbio., immunology, & virology	1,944	1,998	2,157	2,239	2,320	2,352	2,366	2,459
Nutrition	2,990	2,854	2,941	2,967	2,941	2,916	2,947	3,095
Pathology	541	584	554	579	586	638	661	759
Pharmacology	813	843	847	969	1,024	1,130	1,186	1,245
Physiology	855	835	863	893	933	966	951	983
Zoology	771	793	784	792	835	884	828	860
Biosciences, n.e.c.	676	712	798	876	1,023	1,146	1,472	1,556
Psychology	25,864	26,929	28,541	30,155	32,691	35,185	37,150	38,392
Social sciences	28,666	29,440	30,076	31,447	33,820	35,095	38,293	40,782
Agricultural economics	501	507	546	582	599	636	712	748
Anthropology (cultural & social)	3,345	3,353	3,446	3,580	3,791	3,953	4,247	4,402
Economics (except agricultural)	3,008	3,011	3,098	3,240	3,372	3,557	3,800	3,870
Geography	984	1,093	1,055	1,184	1,204	1,318	1,431	1,582
Linguistics	1,857	1,977	1,947	1,952	2,006	1,913	1,996	2,059
Political science	10,713	10,890	11,422	12,191	13,194	13,757	15,021	16,003
Sociology	3,560	3,842	3,839	3,997	4,290	4,615	5,144	5,558
Sociology/anthropology	539	510	548	568	697	514	569	563
Social sciences, other	4,159	4,257	4,175	4,153	4,667	4,832	5,373	5,997
Engineering, total	12,358	12,956	13,149	13,628	14,690	15,735	17,255	17,735
Aerospace engineering	200	224	227	243	289	327	348	358
Agricultural engineering	84	96	86	87	101	126	144	151
Biomedical engineering	346	398	442	474	547	588	617	696
Chemical engineering	1,039	1,154	1,075	1,029	1,146	1,257	1,394	1,496
Civil engineering	2,147	2,103	2,294	2,435	2,689	3,102	3,652	3,895
Electrical engineering	2,908	3,098	3,278	3,515	3,715	3,871	4,298	4,321
Engineering science	297	287	267	248	299	288	305	305
Industrial eng./management sci.	2,088	2,237	2,088	2,106	2,132	2,350	2,651	2,597
Mechanical engineering	1,159	1,296	1,412	1,398	1,442	1,511	1,698	1,774
Metallurgical/materials eng.	675	729	756	810	897	991	1,074	1,026
Nuclear engineering	123	128	127	141	155	177	186	185
Engineering, other	1,292	1,206	1,097	1,142	1,278	1,147	888	931
Total, health fields	36,399	36,391	37,948	39,957	42,781	45,533	49,189	53,433
Clinical fields	864	908	951	911	922	1,131	1,420	1,548
Dental sciences	211	285	295	291	279	299	349	349
Nursing	17,583	17,349	17,989	18,653	20,177	20,884	22,066	23,538
Pharmaceutical sciences	971	1,020	1,064	1,138	1,141	1,239	1,183	1,279
Preventive medicine/community health	4,181	4,179	4,458	4,743	4,979	5,139	5,374	6,040
Speech pathology/audiology	6,926	6,626	6,735	7,192	7,618	8,237	9,014	9,906
Veterinary sciences	236	278	300	331	388	366	406	407
Other health fields	5,427	5,746	6,156	6,698	7,277	8,238	9,377	10,366

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 9. Science and engineering graduate students in all institutions, by enrollment status, citizenship, and racial/ethnic background: 1986-93

Enrollment status, citizenship, and racial/ethnic background	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total enrollment	415,700	421,651	424,974	435,083	452,937	472,134	494,459	506,678
Total U.S. citizens	328,402	329,498	327,661	333,089	345,830	358,868	380,587	396,567
Black, non-Hispanic	12,422	12,413	13,374	14,031	15,229	16,410	18,500	20,512
American Indian/Alaskan Native	891	944	1,095	1,069	1,270	1,365	1,512	1,615
Asian/Pacific Islander	13,818	15,683	16,437	17,066	18,773	19,995	24,063	27,214
Hispanic	10,177	10,533	10,884	11,212	12,039	13,075	14,660	16,121
White, non-Hispanic	264,668	266,240	267,397	270,238	282,213	289,569	302,855	310,735
Other or unknown	26,426	23,685	18,474	19,473	16,306	18,454	18,997	20,370
Non-U.S. citizens	87,298	92,153	97,313	101,994	107,107	113,266	113,872	110,111
Full-time enrollment	266,265	271,150	275,366	282,813	292,958	307,249	322,895	330,249
Total U.S. citizens	191,186	192,357	191,840	196,029	201,797	211,728	226,229	237,210
Black, non-Hispanic	6,409	6,445	7,008	7,596	8,092	8,840	10,232	11,416
American Indian/Alaskan Native	569	611	672	660	763	857	1,014	1,070
Asian/Pacific Islander	8,549	9,779	10,217	10,662	11,612	12,409	14,841	17,242
Hispanic	6,222	6,254	6,592	6,976	7,574	8,197	9,098	9,831
White, non-Hispanic	158,689	158,610	158,972	161,278	166,735	172,603	181,823	187,649
Other or unknown	10,748	10,658	8,379	8,857	7,021	8,822	9,221	10,002
Non-U.S. citizens	75,079	78,793	83,526	86,784	91,161	95,521	96,666	93,039
Part-time enrollment	149,435	150,501	149,608	152,270	159,979	164,885	171,564	176,429
Total U.S. citizens	137,216	137,141	135,821	137,060	144,033	147,140	154,358	159,357
Black, non-Hispanic	6,013	5,968	6,366	6,435	7,137	7,570	8,268	9,096
American Indian/Alaskan Native	322	333	423	409	507	508	498	545
Asian/Pacific Islander	5,269	5,904	6,220	6,404	7,161	7,586	9,222	9,972
Hispanic	3,955	4,279	4,292	4,236	4,465	4,878	5,562	6,290
White, non-Hispanic	105,979	107,630	108,425	108,960	115,478	116,966	121,032	123,086
Other or unknown	15,678	13,027	10,095	10,616	9,285	9,632	9,776	10,368
Non-U.S. citizens	12,219	13,360	13,787	15,210	15,946	17,745	17,206	17,072

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 10. Science and engineering graduate students in all institutions, by geographic distribution: 1986-93

Geographic distribution	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all institutions	415,700	421,651	424,974	435,083	452,937	472,134	494,459	506,678
New England	29,970	29,953	32,768	32,313	33,974	34,590	35,544	36,701
Connecticut	6,356	6,580	7,040	7,116	7,427	7,224	7,399	7,873
Maine	538	614	649	667	689	747	854	842
Massachusetts	19,582	19,196	21,234	20,600	21,859	22,595	22,947	23,695
New Hampshire	869	882	1,103	1,131	1,166	1,199	1,257	1,247
Rhode Island	1,993	2,074	2,068	2,135	2,157	2,141	2,338	2,315
Vermont	632	607	674	664	676	684	749	729
Middle Atlantic	71,062	70,660	76,427	77,327	79,020	81,587	85,068	85,609
New Jersey	11,028	11,368	11,884	11,562	11,609	11,722	12,067	12,301
New York	42,343	41,741	44,929	45,502	46,602	47,349	49,676	49,824
Pennsylvania	17,691	17,551	19,614	20,263	20,809	22,516	23,325	23,484
East North Central	67,855	70,584	75,060	77,020	80,142	83,218	86,171	88,512
Illinois	20,042	20,976	22,608	23,300	23,977	24,587	25,535	26,337
Indiana	7,866	8,192	8,674	9,093	9,551	9,905	10,415	10,738
Michigan	14,266	14,580	14,723	15,607	16,241	16,925	17,879	18,442
Ohio	17,914	18,913	20,104	19,722	20,722	21,740	22,024	22,333
Wisconsin	7,767	7,923	8,951	9,298	9,651	10,061	10,318	10,662
West North Central	24,688	24,707	27,210	28,055	29,265	30,778	32,035	32,864
Iowa	4,765	4,777	5,099	5,152	5,472	5,695	5,755	5,949
Kansas	4,265	4,418	4,758	5,101	5,270	5,452	5,857	6,053
Minnesota	5,570	5,319	6,587	6,800	6,935	7,549	7,773	8,118
Missouri	6,177	6,265	6,629	6,767	7,170	7,238	7,399	7,310
Nebraska	2,130	2,164	2,346	2,380	2,527	2,782	3,080	3,203
North Dakota	970	915	947	947	886	931	985	981
South Dakota	811	849	844	908	1,005	1,131	1,186	1,250
South Atlantic	57,668	59,523	62,580	64,796	68,538	72,159	77,181	80,303
Delaware	1,189	1,303	1,198	1,257	1,378	1,484	1,597	1,721
District of Columbia	9,240	9,317	8,436	8,123	8,342	8,501	9,252	9,498
Florida	10,045	10,862	12,194	12,634	13,727	14,915	16,097	17,235
Georgia	6,352	6,678	7,257	7,572	8,046	8,722	9,426	9,863
Maryland	8,059	8,078	9,043	9,597	9,827	10,241	10,785	11,117
North Carolina	8,353	8,410	9,023	9,555	9,891	10,277	11,037	10,936
South Carolina	3,295	3,384	3,284	3,535	3,675	3,993	4,356	4,400
Virginia	9,198	9,654	10,140	10,505	11,428	11,663	12,066	12,791
West Virginia	1,937	1,837	2,005	2,018	2,224	2,363	2,565	2,742
East South Central	15,052	15,253	17,638	18,759	19,195	19,969	20,932	21,818
Alabama	4,439	4,703	5,247	5,681	6,111	6,390	6,565	6,995
Kentucky	2,654	2,786	3,739	3,925	3,798	3,965	4,252	4,227
Mississippi	2,573	2,505	2,680	2,811	2,743	2,833	2,850	3,076
Tennessee	5,386	5,259	5,972	6,342	6,543	6,781	7,265	7,520
West South Central	35,262	35,061	37,490	39,560	42,042	44,789	48,510	49,043
Arkansas	1,161	1,180	1,723	1,716	1,915	2,047	2,285	2,647
Louisiana	4,638	4,559	4,743	4,833	5,194	5,877	6,341	6,503
Oklahoma	4,016	4,296	4,108	4,270	4,552	4,851	5,182	5,241
Texas	25,447	25,026	26,916	28,741	30,381	32,014	34,702	34,652
Mountain	23,906	24,656	24,912	25,374	27,194	29,046	31,075	32,349
Arizona	6,748	6,800	7,115	7,224	7,325	7,468	7,762	8,176
Colorado	7,056	7,399	7,284	7,232	8,489	9,299	9,844	9,996
Idaho	1,035	1,173	1,225	1,405	1,524	1,512	1,568	1,701
Montana	958	970	1,049	1,061	1,069	1,135	1,300	1,387
Nevada	514	616	868	1,021	1,134	1,279	1,465	1,504
New Mexico	2,723	2,926	2,894	2,915	3,075	3,176	3,631	3,854
Utah	4,112	4,013	3,760	3,714	3,727	4,249	4,549	4,733
Wyoming	760	759	717	802	851	928	956	998
Pacific	63,814	64,847	68,692	69,601	71,192	73,396	75,183	76,663
Alaska	399	387	537	580	680	690	787	852
California	52,708	53,752	56,295	57,276	58,104	59,540	61,143	62,157
Hawaii	1,820	1,822	1,829	1,857	1,981	2,088	2,061	2,176
Oregon	3,429	3,454	3,634	3,612	3,851	4,173	4,320	4,460
Washington	5,458	5,432	6,397	6,276	6,576	6,905	6,872	7,018
Outlying areas	2,520	2,298	2,197	2,278	2,375	2,602	2,760	2,816
State unknown [2]	23,903	24,109	0	0	0	0	0	0

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

[2] These numbers represent the total of all nonsampled master's-granting institutions.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 11. Full-time science and engineering graduate students in all institutions, by field and source of major support: 1986-93

Field and source of major support	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all surveyed fields:								
Total, all sources	266,265	271,150	275,366	282,813	292,958	307,249	322,895	330,249
Federal, total	51,380	53,545	55,483	57,441	59,282	63,021	65,606	67,327
Dept of Defense	7,945	8,798	9,535	9,139	8,863	9,123	9,244	9,607
Dept of HHS, total	16,377	17,191	17,905	18,653	19,509	20,471	21,369	21,865
NIH	11,877	12,944	13,715	14,357	14,997	16,020	17,108	18,072
Other HHS	4,500	4,247	4,190	4,296	4,512	4,451	4,261	3,793
NSF	10,827	11,248	11,625	11,890	12,019	12,661	13,361	13,410
USDA	2,338	2,684	2,598	2,732	2,725	3,077	3,218	3,342
All other Federal	13,893	13,624	13,820	15,027	16,166	17,689	18,414	19,103
Institutional support	109,229	112,297	114,920	119,307	123,138	125,470	128,035	129,462
Other outside support, total	26,732	25,476	25,707	25,825	26,110	27,031	27,744	26,932
All other U.S.	19,059	18,278	18,719	19,109	19,597	20,416	21,305	21,358
Foreign	7,673	7,200	6,988	6,716	6,513	6,615	6,439	5,574
Self-support	78,924	79,830	79,256	80,240	84,428	91,727	101,510	106,528
Sciences, total:								
Total, all sources	182,696	185,304	187,722	192,585	199,529	206,286	216,302	220,683
Federal, total	32,882	33,974	35,173	36,746	37,832	40,061	41,730	43,335
Dept of Defense	3,594	3,967	4,298	3,937	3,763	3,824	3,882	4,075
Dept of HHS, total	11,278	11,978	12,698	13,383	13,849	14,670	15,379	15,866
NIH	10,261	10,943	11,774	12,291	12,707	13,446	14,251	15,033
Other HHS	1,017	1,035	924	1,092	1,142	1,224	1,128	833
NSF	7,653	7,711	7,773	8,077	8,088	8,308	8,686	8,809
USDA	2,102	2,380	2,376	2,482	2,436	2,743	2,791	2,953
All other Federal	8,255	7,938	8,028	8,867	9,696	10,516	10,992	11,632
Institutional support	83,168	85,030	87,111	89,665	92,623	93,343	95,416	96,198
Other outside support, total	14,967	14,164	14,341	14,321	14,352	14,892	15,492	15,308
All other U.S.	10,014	9,571	9,799	10,168	10,299	10,815	11,537	11,834
Foreign	4,953	4,593	4,542	4,153	4,053	4,077	3,955	3,474
Self-support	51,679	52,136	51,097	51,853	54,722	57,990	63,664	65,842
Physical sciences:								
Total, all sources	27,762	28,412	28,574	29,207	29,492	30,125	30,675	30,619
Federal, total	9,521	9,716	9,857	10,247	10,284	10,835	11,009	11,010
Dept of Defense	1,161	1,292	1,475	1,392	1,214	1,227	1,196	1,109
Dept of HHS, total	2,012	2,097	2,152	2,111	2,096	2,042	2,188	2,161
NIH	1,847	1,930	2,002	1,981	1,952	1,874	2,056	2,050
Other HHS	165	167	150	130	144	168	132	111
NSF	3,669	3,589	3,656	3,612	3,567	3,571	3,601	3,594
USDA	31	44	32	43	54	61	68	61
All other Federal	2,648	2,694	2,542	3,089	3,353	3,934	3,956	4,085
Institutional support	14,417	14,821	14,860	15,150	15,276	15,055	15,358	15,214
Other outside support, total	1,931	1,872	1,980	2,007	1,974	2,229	2,349	2,306
All other U.S.	1,588	1,595	1,662	1,751	1,716	1,928	2,044	1,955
Foreign	343	277	318	256	258	301	305	351
Self-support	1,893	2,003	1,877	1,803	1,958	2,006	1,959	2,089
Earth, atmospheric, & ocean sciences:								
Total, all sources	11,249	10,435	10,199	10,027	10,262	10,395	11,011	11,403
Federal, total	3,017	2,858	2,789	2,895	2,993	3,122	3,436	3,646
Dept of Defense	453	499	461	435	452	452	472	521
Dept of HHS, total	39	57	51	25	34	56	49	48
NIH	25	24	19	17	21	23	43	41
Other HHS	14	33	32	8	13	33	6	7
NSF	1,356	1,260	1,236	1,253	1,210	1,223	1,320	1,361
USDA	18	31	40	43	57	69	86	64
All other Federal	1,151	1,011	1,001	1,139	1,240	1,322	1,509	1,652
Institutional support	4,342	4,180	4,292	4,262	4,265	4,323	4,333	4,426
Other outside support, total	1,170	986	1,025	990	952	975	1,006	930
All other U.S.	857	665	669	652	679	687	761	737
Foreign	313	321	356	338	273	288	245	193
Self-support	2,720	2,411	2,093	1,880	2,052	1,975	2,236	2,401
Mathematical sciences:								
Total, all sources	12,390	13,044	13,513	13,683	13,867	14,258	14,681	14,584
Federal, total	999	1,090	1,190	1,221	1,335	1,505	1,499	1,471
Dept of Defense	432	438	513	395	367	376	386	398
Dept of HHS, total	24	30	28	36	49	69	118	80
NIH	19	24	25	28	39	64	111	74
Other HHS	5	6	3	8	10	5	7	6
NSF	357	436	463	475	491	452	457	465
USDA	18	16	20	22	23	21	25	28
All other Federal	168	170	166	293	405	587	513	500
Institutional support	8,485	8,836	9,131	9,373	9,489	9,531	9,578	9,424
Other outside support, total	598	548	616	585	560	590	626	525
All other U.S.	253	239	350	348	317	321	356	304
Foreign	345	309	266	237	243	269	270	221
Self-support	2,308	2,570	2,576	2,504	2,483	2,632	2,978	3,164

See explanatory information, if any, and SOURCE(S) at end of table.

Table 11. Full-time science and engineering graduate students in all institutions, by field and source of major support: 1986-93

Field and source of major support	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Computer sciences:								
Total, all sources	15,020	15,336	15,133	15,606	16,690	16,538	17,498	17,458
Federal, total	1,889	2,076	2,219	2,324	2,409	2,533	2,661	2,927
Dept of Defense	1,036	1,132	1,214	1,164	1,129	1,131	1,210	1,324
Dept of HHS, total	45	62	64	60	71	71	104	110
NIH	43	61	64	53	62	65	101	99
Other HHS	2	1	0	7	9	6	3	11
NSF	523	619	632	777	819	896	962	992
USDA	3	17	10	7	14	8	6	16
All other Federal	282	246	299	316	376	427	379	485
Institutional support	4,543	4,988	5,131	5,342	5,653	5,474	5,603	5,478
Other outside support, total	1,547	1,260	1,312	1,278	1,281	1,322	1,356	1,433
All other U.S.	1,211	964	987	950	935	972	1,031	1,160
Foreign	336	296	325	328	346	350	325	273
Self-support	7,041	7,012	6,471	6,662	7,347	7,209	7,878	7,620
Agricultural sciences:								
Total, all sources	9,338	9,091	9,123	9,076	9,092	9,291	9,442	9,497
Federal, total	1,657	1,713	1,784	1,815	1,800	1,891	1,993	1,976
Dept of Defense	17	30	32	13	18	26	18	34
Dept of HHS, total	15	30	34	37	45	46	41	32
NIH	14	22	33	26	40	38	38	30
Other HHS	1	8	1	11	5	8	3	2
NSF	72	61	50	48	65	61	76	75
USDA	891	939	960	1,062	955	1,112	1,105	1,151
All other Federal	662	653	708	655	717	646	753	684
Institutional support	3,649	3,600	3,487	3,468	3,454	3,541	3,617	3,653
Other outside support, total	1,815	1,674	1,773	1,698	1,772	1,720	1,687	1,659
All other U.S.	939	836	951	1,027	1,103	1,063	1,101	1,172
Foreign	876	838	822	671	669	657	586	487
Self-support	2,217	2,104	2,079	2,095	2,066	2,139	2,145	2,209
Biological sciences:								
Total, all sources	37,816	38,239	39,214	40,361	40,959	42,718	44,432	46,547
Federal, total	11,124	11,865	12,475	13,266	13,667	14,510	15,159	16,219
Dept of Defense	189	248	283	251	222	223	232	271
Dept of HHS, total	7,894	8,375	8,928	9,618	9,951	10,665	11,059	11,613
NIH	7,527	8,049	8,661	9,265	9,584	10,213	10,642	11,282
Other HHS	367	326	267	353	367	452	417	331
NSF	1,079	1,135	1,121	1,253	1,212	1,284	1,350	1,372
USDA	815	980	992	955	974	1,069	1,090	1,225
All other Federal	1,147	1,127	1,151	1,189	1,308	1,269	1,428	1,738
Institutional support	17,606	17,579	17,915	18,444	18,862	19,258	19,757	20,091
Other outside support, total	3,050	3,123	3,384	3,433	3,530	3,738	3,796	3,864
All other U.S.	2,124	2,251	2,557	2,635	2,803	3,021	3,118	3,281
Foreign	926	872	827	798	727	717	678	583
Self-support	6,036	5,672	5,440	5,218	4,900	5,212	5,720	6,373
Psychology:								
Total, all sources	26,255	27,256	28,224	29,478	30,791	32,443	34,350	34,953
Federal, total	2,025	2,049	2,170	2,211	2,410	2,502	2,587	2,621
Dept of Defense	158	177	153	113	156	159	136	163
Dept of HHS, total	947	1,006	1,124	1,183	1,289	1,352	1,399	1,405
NIH	586	627	763	720	799	901	963	1,154
Other HHS	361	379	361	463	490	451	436	251
NSF	231	246	233	236	262	268	285	313
USDA	9	18	25	29	37	24	19	15
All other Federal	680	602	635	650	666	699	748	725
Institutional support	10,912	10,893	11,277	11,733	12,189	12,324	12,734	13,188
Other outside support, total	1,414	1,281	1,052	1,132	1,121	1,073	1,110	1,092
All other U.S.	1,344	1,219	988	1,077	1,063	1,017	1,053	1,045
Foreign	70	62	64	55	58	56	57	47
Self-support	11,904	13,033	13,725	14,402	15,071	16,544	17,919	18,052
Social sciences:								
Total, all sources	42,866	43,491	43,742	45,147	48,376	50,518	54,213	55,622
Federal, total	2,650	2,607	2,689	2,767	2,934	3,163	3,386	3,465
Dept of Defense	148	151	167	174	205	230	232	255
Dept of HHS, total	302	321	317	313	314	369	421	417
NIH	200	206	207	201	210	268	297	303
Other HHS	102	115	110	112	104	101	124	114
NSF	366	365	382	423	462	553	635	637
USDA	317	335	297	321	322	379	392	393
All other Federal	1,517	1,435	1,526	1,536	1,631	1,632	1,706	1,763
Institutional support	19,214	20,133	21,018	21,893	23,435	23,837	24,436	24,724
Other outside support, total	3,442	3,420	3,199	3,198	3,162	3,245	3,562	3,499
All other U.S.	1,698	1,802	1,635	1,728	1,683	1,806	2,073	2,180
Foreign	1,744	1,618	1,564	1,470	1,479	1,439	1,489	1,319
Self-support	17,560	17,331	16,836	17,289	18,845	20,273	22,829	23,934

See explanatory information, if any, and SOURCE(S) at end of table.

Table 11. Full-time science and engineering graduate students in all institutions, by field and source of major support: 1986-93

Field and source of major support	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Engineering, total:								
Total, all sources	60,164	61,931	63,066	64,408	65,998	71,099	74,555	73,962
Federal, total	12,377	13,125	13,987	14,220	14,681	15,991	16,569	16,782
Dept of Defense	4,116	4,590	4,992	4,835	4,724	4,882	4,963	5,117
Dept of HHS, total	536	629	601	699	760	810	901	923
NIH	449	515	531	618	661	724	798	793
Other HHS	87	114	70	81	99	86	103	130
NSF	3,129	3,486	3,803	3,765	3,882	4,297	4,605	4,511
USDA	194	256	191	204	231	274	358	311
All other Federal	4,402	4,164	4,400	4,717	5,084	5,728	5,742	5,920
Institutional support	20,223	21,375	21,614	22,816	23,346	24,650	24,967	25,092
Other outside support, total	10,196	9,811	10,088	10,093	10,379	10,616	10,546	9,857
All other U.S.	8,001	7,714	8,038	8,010	8,384	8,538	8,522	8,202
Foreign	2,195	2,097	2,050	2,083	1,995	2,078	2,024	1,655
Self-support	17,368	17,620	17,377	17,279	17,592	19,842	22,473	22,231
Chemical engineering:								
Total, all sources	5,594	5,674	5,359	5,282	5,443	5,788	5,946	6,021
Federal, total	1,394	1,501	1,452	1,459	1,529	1,598	1,654	1,742
Dept of Defense	101	150	145	130	98	134	123	138
Dept of HHS, total	69	78	83	87	121	132	166	141
NIH	67	70	79	87	119	128	146	119
Other HHS	2	8	4	0	2	4	20	22
NSF	652	692	683	654	679	664	699	725
USDA	6	24	7	13	27	16	38	52
All other Federal	566	557	534	575	604	652	628	686
Institutional support	2,048	2,055	2,021	1,976	2,105	2,282	2,308	2,354
Other outside support, total	1,301	1,325	1,279	1,278	1,241	1,228	1,170	1,051
All other U.S.	1,172	1,197	1,166	1,184	1,142	1,111	1,072	952
Foreign	129	128	113	94	99	117	98	99
Self-support	851	793	607	569	568	680	814	874
Civil engineering:								
Total, all sources	9,971	9,628	9,946	9,964	10,128	11,328	12,439	12,497
Federal, total	1,370	1,428	1,512	1,403	1,467	1,752	2,025	1,965
Dept of Defense	250	277	327	280	235	273	349	328
Dept of HHS, total	28	12	5	18	15	35	43	38
NIH	18	8	3	16	11	31	38	30
Other HHS	10	4	2	2	4	4	5	8
NSF	390	462	420	382	428	498	532	509
USDA	23	37	37	33	36	51	80	63
All other Federal	679	640	723	690	753	895	1,021	1,027
Institutional support	3,546	3,594	3,844	3,904	3,913	4,204	4,385	4,477
Other outside support, total	1,248	1,083	1,108	1,200	1,256	1,339	1,476	1,449
All other U.S.	808	693	695	723	826	918	1,030	1,128
Foreign	440	390	413	477	430	421	446	321
Self-support	3,807	3,523	3,482	3,457	3,492	4,033	4,553	4,606
Electrical engineering:								
Total, all sources	16,290	17,101	17,706	18,466	18,675	19,904	21,010	20,438
Federal, total	2,799	3,060	3,467	3,476	3,571	3,866	4,061	4,064
Dept of Defense	1,416	1,587	1,687	1,675	1,646	1,644	1,700	1,737
Dept of HHS, total	80	88	97	61	77	85	90	103
NIH	57	56	75	45	55	76	81	86
Other HHS	23	32	22	16	22	9	9	17
NSF	760	852	1,135	1,084	1,133	1,278	1,388	1,277
USDA	4	15	11	14	16	18	24	11
All other Federal	539	518	537	642	699	841	859	936
Institutional support	5,225	5,586	5,724	6,390	6,355	6,640	6,856	6,810
Other outside support, total	3,158	2,779	2,822	2,883	2,953	3,004	2,936	2,735
All other U.S.	2,536	2,198	2,372	2,389	2,443	2,492	2,450	2,318
Foreign	622	581	450	494	510	512	486	417
Self-support	5,108	5,676	5,693	5,717	5,796	6,394	7,157	6,829
Industrial engineering:								
Total, all sources	3,805	4,155	4,294	4,664	4,779	5,607	6,088	5,882
Federal, total	374	469	561	590	620	714	657	655
Dept of Defense	148	213	284	289	310	292	276	258
Dept of HHS, total	45	44	39	59	60	52	53	78
NIH	14	23	22	25	27	16	22	36
Other HHS	31	21	17	34	33	36	31	42
NSF	78	97	115	126	129	188	165	173
USDA	1	1	2	0	1	5	5	3
All other Federal	102	114	121	116	120	177	158	143
Institutional support	1,318	1,484	1,455	1,630	1,686	1,858	1,878	1,974
Other outside support, total	436	448	504	533	571	496	568	485
All other U.S.	354	370	392	387	415	362	430	396
Foreign	82	78	112	146	156	134	138	89
Self-support	1,677	1,754	1,774	1,911	1,902	2,539	2,985	2,768

See explanatory information, if any, and SOURCE(S) at end of table.

Table 11. Full-time science and engineering graduate students in all institutions, by field and source of major support: 1986-93

Field and source of major support	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Mechanical engineering:								
Total, all sources	9,789	10,230	10,426	10,464	10,816	11,687	12,433	12,441
Federal, total	2,048	2,266	2,435	2,485	2,532	2,730	2,790	2,973
Dept of Defense	633	770	819	840	751	738	730	800
Dept of HHS, total	61	84	70	61	69	71	87	86
NIH	52	67	65	54	68	58	77	70
Other HHS	9	17	5	7	1	13	10	16
NSF	477	593	661	632	639	732	786	797
USDA	10	15	16	28	26	29	26	14
All other Federal	867	804	869	924	1,047	1,160	1,161	1,276
Institutional support	3,683	3,861	3,783	3,854	4,043	4,287	4,400	4,284
Other outside support, total	1,504	1,527	1,536	1,542	1,599	1,686	1,618	1,573
All other U.S.	1,249	1,289	1,303	1,327	1,383	1,415	1,401	1,404
Foreign	255	238	233	215	216	271	217	169
Self-support	2,554	2,576	2,672	2,583	2,642	2,984	3,625	3,611
Other engineering:								
Total, all sources	14,715	15,143	15,335	15,568	16,157	16,785	16,639	16,683
Federal, total	4,392	4,401	4,560	4,807	4,962	5,331	5,382	5,383
Dept of Defense	1,568	1,593	1,730	1,621	1,684	1,801	1,785	1,856
Dept of HHS, total	253	323	307	413	418	435	462	477
NIH	241	291	287	391	381	415	434	452
Other HHS	12	32	20	22	37	20	28	25
NSF	772	790	789	887	874	937	1,035	1,030
USDA	150	164	118	116	125	155	185	168
All other Federal	1,649	1,531	1,616	1,770	1,861	2,003	1,915	1,852
Institutional support	4,403	4,795	4,787	5,062	5,244	5,379	5,140	5,193
Other outside support, total	2,549	2,649	2,839	2,657	2,759	2,863	2,778	2,564
All other U.S.	1,882	1,967	2,110	2,000	2,175	2,240	2,139	2,004
Foreign	667	682	729	657	584	623	639	560
Self-support	3,371	3,298	3,149	3,042	3,192	3,212	3,339	3,543
Total, health fields:								
Total, all sources	23,405	23,915	24,578	25,820	27,431	29,864	32,038	35,604
Federal, total	6,121	6,446	6,323	6,475	6,769	6,969	7,307	7,210
Dept of Defense	235	241	245	367	376	417	399	415
Dept of HHS, total	4,563	4,584	4,606	4,571	4,900	4,991	5,089	5,076
NIH	1,167	1,486	1,410	1,448	1,629	1,850	2,059	2,246
Other HHS	3,396	3,098	3,196	3,123	3,271	3,141	3,030	2,830
NSF	45	51	49	48	49	56	70	90
USDA	42	48	31	46	58	60	69	78
All other Federal	1,236	1,522	1,392	1,443	1,386	1,445	1,680	1,551
Institutional support	5,838	5,892	6,195	6,826	7,169	7,477	7,652	8,172
Other outside support, total	1,569	1,503	1,278	1,411	1,379	1,523	1,706	1,767
All other U.S.	1,044	993	882	931	914	1,063	1,246	1,322
Foreign	525	510	396	480	465	460	460	445
Self-support	9,877	10,074	10,782	11,108	12,114	13,895	15,373	18,455

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 12. Full-time science and engineering graduate students in all institutions, by type and source of major support: 1986-93

Type and source of major support	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all types								
Total, all sources	266,265	271,150	275,366	282,813	292,958	307,249	322,895	330,249
Federal, total	51,380	53,545	55,483	57,441	59,282	63,021	65,606	67,327
Dept of Defense	7,945	8,798	9,535	9,139	8,863	9,123	9,244	9,607
Dept of HHS, total	16,377	17,191	17,905	18,653	19,509	20,471	21,369	21,865
NIH	11,877	12,944	13,715	14,357	14,997	16,020	17,108	18,072
Other HHS	4,500	4,247	4,190	4,296	4,512	4,451	4,261	3,793
NSF	10,827	11,248	11,625	11,890	12,019	12,661	13,361	13,410
USDA	2,338	2,684	2,598	2,732	2,725	3,077	3,218	3,342
All other Federal	13,893	13,624	13,820	15,027	16,166	17,689	18,414	19,103
Institutional support	109,229	112,297	114,920	119,307	123,138	125,470	128,035	129,462
Other outside support, total	26,732	25,478	25,707	25,825	26,110	27,031	27,744	26,932
All other U.S.	19,059	18,278	18,719	19,109	19,597	20,416	21,305	21,358
Foreign	7,673	7,200	6,988	6,716	6,513	6,615	6,439	5,574
Self support	78,924	79,830	79,256	80,240	84,428	91,727	101,510	106,528
Fellowships								
Total, all sources	22,966	21,965	22,366	23,513	25,305	26,751	28,705	29,335
Federal, total	4,600	4,449	4,569	5,177	6,317	7,446	7,761	7,525
Dept of Defense	294	349	360	415	595	704	676	656
Dept of HHS, total	816	848	826	876	981	1,074	1,254	1,332
NIH	644	686	652	651	790	878	1,052	1,151
Other HHS	172	162	174	225	191	196	202	181
NSF	1,512	1,489	1,587	1,780	2,109	2,267	2,398	2,307
USDA	166	151	95	106	110	102	114	127
All other Federal	1,812	1,612	1,701	2,000	2,522	3,299	3,319	3,103
Institutional support	11,617	11,430	11,815	12,395	13,068	13,206	14,412	15,019
Other outside support, total	6,749	6,086	5,982	5,941	5,920	6,099	6,532	6,791
All other U.S.	4,011	3,697	3,438	3,600	3,673	3,791	4,085	4,038
Foreign	2,738	2,389	2,544	2,341	2,247	2,308	2,447	2,753
Self support	0	0	0	0	0	0	0	0
Traineeships								
Total, all sources	13,526	14,096	14,418	14,527	15,213	15,417	15,383	15,317
Federal, total	8,688	8,922	8,670	8,682	9,242	9,632	10,030	10,116
Dept of Defense	79	137	133	112	110	133	107	122
Dept of HHS, total	7,386	7,323	7,237	7,065	7,619	7,844	7,926	7,848
NIH	3,933	4,230	4,110	4,015	4,402	4,794	4,974	5,102
Other HHS	3,453	3,093	3,127	3,050	3,217	3,050	2,952	2,746
NSF	27	83	68	84	47	80	106	164
USDA	57	87	44	49	57	37	31	48
All other Federal	1,139	1,292	1,188	1,372	1,409	1,538	1,860	1,934
Institutional support	3,887	4,244	4,759	4,902	5,131	4,957	4,486	4,242
Other outside support, total	951	930	989	943	840	828	867	959
All other U.S.	732	656	723	645	575	617	643	640
Foreign	219	274	266	298	265	211	224	319
Self support	0	0	0	0	0	0	0	0
Research assistantships								
Total, all sources	66,026	70,224	74,568	79,006	80,714	85,154	88,006	89,729
Federal, total	32,747	34,996	36,742	38,543	38,500	40,782	42,576	44,227
Dept of Defense	4,646	5,617	6,016	5,906	5,396	5,469	5,715	6,175
Dept of HHS, total	7,711	8,476	9,363	10,252	10,443	11,055	11,618	12,049
NIH	7,001	7,662	8,598	9,342	9,464	9,990	10,632	11,328
Other HHS	710	814	765	910	979	1,065	986	721
NSF	9,084	9,487	9,813	9,865	9,699	10,156	10,645	10,701
USDA	1,962	2,325	2,307	2,452	2,434	2,818	2,961	3,030
All other Federal	9,344	9,091	9,243	10,068	10,528	11,284	11,637	12,272
Institutional support	23,008	25,012	26,590	28,798	30,105	31,449	31,908	31,810
Other outside support, total	10,271	10,216	11,236	11,665	12,109	12,923	13,522	13,692
All other U.S.	9,683	9,621	10,618	10,990	11,380	12,092	12,700	12,813
Foreign	588	595	618	675	729	831	822	879
Self support	0	0	0	0	0	0	0	0
Teaching assistantships								
Total, all sources	62,565	62,866	63,166	64,417	65,056	65,312	65,719	66,996
Federal, total	497	444	504	490	609	476	643	890
Dept of Defense	0	0	0	0	0	0	0	0
Dept of HHS, total	110	151	143	143	121	112	201	202
NIH	82	123	117	129	97	90	173	175
Other HHS	28	28	26	14	24	22	28	27
NSF	75	27	58	66	86	75	114	138
USDA	33	16	44	33	44	33	28	49
All other Federal	279	250	259	248	358	256	300	501
Institutional support	61,540	61,945	62,183	63,373	63,927	64,291	64,497	65,455
Other outside support, total	528	477	479	554	520	545	579	651
All other U.S.	528	477	479	554	520	545	579	651
Foreign	0	0	0	0	0	0	0	0
Self support	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE(S) at end of table.

Table 12. Full-time science and engineering graduate students in all institutions, by type and source of major support: 1986-93

Type and source of major support	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Other types of support								
Total, all sources	101,182	101,999	100,848	101,350	106,670	114,615	125,082	128,872
Federal, total	4,848	4,734	4,998	4,549	4,614	4,685	4,596	4,569
Dept of Defense	2,926	2,695	3,026	2,706	2,762	2,817	2,746	2,654
Dept of HHS, total	354	393	336	317	345	386	370	434
NIH	217	243	238	220	244	268	277	316
Other HHS	137	150	98	97	101	118	93	118
NSF	129	162	99	95	78	83	98	100
USDA	120	105	108	92	80	87	84	88
All other Federal	1,319	1,379	1,429	1,339	1,349	1,312	1,298	1,293
Institutional support	9,177	9,666	9,573	9,839	10,907	11,567	12,732	12,936
Other outside support, total	8,233	7,769	7,021	6,722	6,721	6,636	6,244	4,839
All other U.S.	4,105	3,827	3,461	3,320	3,449	3,371	3,298	3,216
Foreign	4,128	3,942	3,560	3,402	3,272	3,265	2,946	1,623
Self support	78,924	79,830	79,256	80,240	84,428	91,727	101,510	106,528

[1] Includes estimated data for master's granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 13. Full-time science and engineering graduate students with U.S. citizenship in all institutions, by field: 1986-93

Field	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	191,186	192,357	191,840	196,029	201,797	211,728	226,229	237,210
Total, science and engineering fields	170,476	171,202	170,316	173,497	177,928	185,634	197,873	205,405
Sciences, total	137,248	137,271	136,753	139,389	143,424	148,479	157,856	163,965
Physical sciences	18,264	18,384	18,090	18,068	17,805	18,217	18,742	19,251
Astronomy	494	507	545	604	603	598	621	638
Chemistry	11,484	11,295	10,764	10,548	10,242	10,375	10,716	11,142
Physics	6,155	6,410	6,674	6,815	6,866	7,140	7,296	7,363
Physical sciences, n.e.c.	131	172	107	101	94	104	109	108
Earth, atmospheric, & ocean sciences	9,382	8,496	8,047	7,723	7,831	7,823	8,334	8,688
Atmospheric sciences	649	605	598	575	564	570	652	708
Geosciences	6,365	5,565	5,115	4,704	4,438	4,282	4,365	4,427
Oceanography	1,304	1,295	1,192	1,277	1,402	1,427	1,570	1,652
Earth, atmos., & ocean sci., n.e.c.	1,064	1,031	1,142	1,167	1,427	1,544	1,747	1,901
Mathematical sciences	7,245	7,550	7,739	7,699	7,961	8,380	8,939	9,176
Computer sciences	8,912	8,863	8,415	8,616	8,742	8,435	8,849	8,966
Agricultural sciences	6,740	6,430	6,439	6,402	6,207	6,396	6,577	6,701
Biological sciences	30,672	30,261	30,251	30,372	30,297	31,121	32,622	34,664
Anatomy	772	776	793	784	709	720	723	738
Biochemistry	3,536	3,392	3,401	3,301	3,200	3,237	3,339	3,438
Biology	7,308	7,185	7,218	7,469	7,370	7,580	7,796	8,266
Biometry, epidemiology	826	899	912	907	889	983	1,147	1,448
Biophysics	329	343	365	402	407	433	479	541
Botany	2,052	1,858	1,718	1,635	1,539	1,474	1,517	1,550
Cell biology	1,380	1,553	1,618	1,700	1,950	2,097	2,269	2,496
Ecology	763	686	708	740	733	769	864	892
Entomology, parasitology	855	767	775	718	699	679	712	718
Genetics	966	964	923	954	1,004	1,104	1,182	1,323
Microbio., immunology, & virology	3,143	3,208	3,356	3,259	3,222	3,215	3,319	3,414
Nutrition	*2,113	1,969	1,855	1,813	1,783	1,758	1,784	1,810
Pathology	817	834	828	829	804	803	860	981
Pharmacology	1,638	1,543	1,544	1,626	1,652	1,672	1,724	1,897
Physiology	1,686	1,646	1,561	1,507	1,495	1,525	1,536	1,623
Zoology	1,525	1,557	1,453	1,499	1,385	1,468	1,494	1,486
Biosciences, n.e.c.	963	1,081	1,223	1,229	1,456	1,604	1,877	2,043
Psychology	25,085	26,044	26,895	28,137	29,294	30,804	32,706	33,343
Social sciences	30,948	31,243	30,877	32,372	35,287	37,303	41,087	43,176
Agricultural economics	1,205	1,118	1,037	996	1,031	1,057	1,110	1,071
Anthropology (cultural & social)	3,525	3,526	3,625	3,756	4,112	4,363	4,620	4,745
Economics (except agricultural)	4,876	4,740	4,535	4,571	4,650	5,066	5,435	5,629
Geography	1,724	1,865	1,808	1,930	1,942	2,129	2,375	2,594
Linguistics	1,397	1,497	1,525	1,453	1,518	1,497	1,525	1,679
Political science	10,411	10,049	10,270	11,261	12,555	13,244	14,902	15,672
Sociology	3,358	3,698	3,667	3,896	4,308	4,620	5,137	5,426
Sociology, anthropology	460	434	442	499	628	536	585	598
Social sciences, other	3,992	4,316	3,968	4,008	4,543	4,791	5,398	5,766
Engineering, total	33,228	33,931	33,563	34,108	34,504	37,155	40,017	41,440
Aerospace engineering	1,343	1,559	1,502	1,757	1,870	2,201	2,246	2,181
Agricultural engineering	460	480	406	362	330	332	377	403
Biomedical engineering	1,012	1,016	1,028	1,042	1,210	1,263	1,444	1,570
Chemical engineering	3,412	3,362	2,967	2,677	2,679	2,811	2,963	3,171
Civil engineering	5,303	5,090	5,208	5,097	5,375	6,140	6,982	7,428
Electrical engineering	8,572	9,002	9,295	9,723	9,652	9,976	10,580	10,488
Engineering science	854	782	803	702	745	774	802	825
Industrial eng., management sci.	2,051	2,144	2,226	2,429	2,381	2,771	3,085	3,207
Mechanical engineering	5,218	5,559	5,305	5,617	5,757	6,120	6,854	7,293
Metallurgical, materials eng.	1,854	1,829	1,805	1,890	1,987	2,071	2,252	2,267
Nuclear engineering	614	594	644	628	577	580	611	634
Engineering, other	2,535	2,514	2,374	2,184	1,941	2,106	1,821	1,973
Total, health fields	20,710	21,155	21,524	22,532	23,869	26,094	28,356	31,805
Clinical fields	908	987	1,145	1,233	1,261	1,480	1,667	1,836
Dental sciences	653	767	776	689	643	652	760	769
Nursing	5,715	5,759	5,841	5,817	5,949	6,223	6,141	6,564
Pharmaceutical sciences	1,145	1,131	1,093	1,141	1,189	1,214	1,115	1,194
Preventive medicine, community health	3,264	3,337	3,350	3,334	3,515	3,436	3,923	4,448
Speech pathology, audiology	5,101	4,806	4,948	5,326	5,478	6,184	6,817	7,785
Veterinary sciences	368	439	445	479	508	494	522	470
Other health fields	3,556	3,929	3,926	4,513	5,326	6,411	7,411	8,739

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 14. Full-time science and engineering graduate students without U.S. citizenship in all institutions, by field: 1986-93

Field	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	75,079	78,793	83,526	86,784	91,161	95,521	96,666	93,039
Total, science and engineering fields	72,384	76,033	80,472	83,496	87,599	91,751	92,984	89,240
Sciences, total	45,448	48,033	50,969	53,196	56,105	57,807	58,446	56,718
Physical sciences	9,498	10,028	10,484	11,139	11,687	11,908	11,933	11,368
Astronomy	160	172	160	158	187	212	219	210
Chemistry	4,516	4,940	5,324	5,730	6,140	6,356	6,283	6,068
Physics	4,800	4,894	4,964	5,225	5,332	5,309	5,395	5,036
Physical sciences, n.e.c.	22	22	36	26	28	31	36	54
Earth, atmospheric, & ocean sciences	1,867	1,939	2,152	2,304	2,431	2,572	2,677	2,715
Atmospheric sciences	206	219	231	235	264	289	307	272
Geosciences	1,019	1,101	1,195	1,279	1,361	1,406	1,520	1,544
Oceanography	390	356	437	522	532	564	563	566
Earth, atmos., & ocean sci., n.e.c.	252	263	289	268	274	313	287	333
Mathematical sciences	5,145	5,494	5,774	5,984	5,906	5,878	5,742	5,408
Computer sciences	6,108	6,473	6,718	6,990	7,948	8,103	8,649	8,492
Agricultural sciences	2,598	2,661	2,684	2,674	2,885	2,895	2,865	2,796
Biological sciences	7,144	7,978	8,963	9,989	10,662	11,597	11,810	11,883
Anatomy	121	153	180	215	202	241	237	239
Biochemistry	1,092	1,212	1,330	1,509	1,625	1,717	1,706	1,750
Biology	1,248	1,354	1,508	1,700	1,779	1,868	1,898	1,836
Biometry, epidemiology	222	267	301	304	342	448	487	542
Biophysics	120	125	179	208	198	246	249	214
Botany	711	738	838	821	834	849	809	821
Cell biology	275	333	405	477	535	619	692	710
Ecology	104	110	122	133	151	150	133	165
Entomology, parasitology	252	295	286	291	298	335	304	321
Genetics	205	244	264	300	293	308	344	367
Microbio., immunology, & virology	725	808	952	1,070	1,150	1,193	1,141	1,179
Nutrition	884	933	942	971	1,046	1,108	1,072	1,162
Pathology	200	243	242	286	289	329	329	350
Pharmacology	318	379	442	509	570	632	682	613
Physiology	319	350	447	550	581	638	624	597
Zoology	187	221	261	269	292	314	295	261
Biosciences, n.e.c.	161	213	264	376	477	602	808	756
Psychology	1,170	1,212	1,329	1,341	1,497	1,639	1,644	1,610
Social sciences	11,918	12,248	12,865	12,775	13,089	13,215	13,126	12,446
Agricultural economics	759	739	872	916	930	954	995	892
Anthropology (cultural & social)	536	582	651	655	697	716	717	684
Economics (except agricultural)	4,083	4,230	4,471	4,495	4,629	4,772	4,736	4,482
Geography	384	425	407	426	432	410	426	432
Linguistics	961	952	994	1,012	1,068	1,052	952	892
Political science	2,946	2,898	2,951	2,698	2,734	2,803	2,818	2,769
Sociology	1,243	1,335	1,423	1,377	1,383	1,305	1,289	1,137
Sociology, anthropology	124	126	124	134	143	116	108	83
Social sciences, other	882	961	972	1,062	1,073	1,087	1,085	1,075
Engineering, total	26,936	28,000	29,503	30,300	31,494	33,944	34,538	32,522
Aerospace engineering	811	813	1,031	1,015	1,140	1,124	1,060	1,085
Agricultural engineering	434	457	482	499	469	496	463	432
Biomedical engineering	271	365	422	568	588	662	723	699
Chemical engineering	2,182	2,312	2,392	2,605	2,764	2,977	2,983	2,850
Civil engineering	4,668	4,538	4,738	4,867	4,753	5,188	5,457	5,069
Electrical engineering	7,718	8,099	8,411	8,743	9,023	9,928	10,430	9,950
Engineering science	591	591	615	557	507	590	613	574
Industrial eng., management sci.	1,754	2,011	2,068	2,235	2,398	2,836	3,003	2,675
Mechanical engineering	4,571	4,671	5,121	4,847	5,059	5,567	5,579	5,148
Metallurgical, materials eng.	1,516	1,607	1,661	1,830	1,949	1,995	2,029	1,988
Nuclear engineering	445	450	461	484	503	490	473	436
Engineering, other	1,975	2,086	2,101	2,050	2,341	2,091	1,725	1,616
Total, health fields	2,695	2,760	3,054	3,288	3,562	3,770	3,682	3,799
Clinical fields	194	204	218	258	296	331	374	392
Dental sciences	181	147	152	167	184	223	228	236
Nursing	160	163	183	170	199	252	215	238
Pharmaceutical sciences	696	693	814	904	959	984	959	939
Preventive medicine, community health	811	825	874	879	977	961	841	868
Speech pathology, audiology	245	224	264	276	289	315	327	340
Veterinary sciences	138	153	161	189	201	223	232	223
Other health fields	270	351	388	445	457	481	506	563

[1] Includes estimated data for master's granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 15. Part-time science and engineering graduate students in all institutions, by field: 1986-93

Field	1986 [1]	1987 [1]	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	149,435	150,501	149,608	152,270	159,979	164,885	171,564	176,429
Total, science and engineering fields	125,352	126,190	124,791	126,234	132,339	136,174	140,587	143,407
Sciences, total	83,660	84,184	84,913	86,598	90,715	93,631	97,025	100,263
Physical sciences	4,484	4,315	4,388	4,409	4,638	4,671	4,740	4,776
Astronomy	35	40	26	27	20	19	29	32
Chemistry	2,744	2,592	2,491	2,550	2,736	2,676	2,930	2,932
Physics	1,482	1,503	1,670	1,617	1,670	1,690	1,497	1,508
Physical sciences, n.e.c.	223	180	201	215	212	286	284	304
Earth, atmospheric, & ocean sciences	3,817	3,936	3,706	3,641	3,762	4,137	4,402	4,488
Atmospheric sciences	106	128	111	102	101	109	130	132
Geosciences	2,435	2,332	2,153	2,069	1,893	1,879	1,859	1,813
Oceanography	434	476	404	408	399	395	397	435
Earth, atmos., & ocean sci., n.e.c.	842	1,000	1,038	1,062	1,369	1,754	2,016	2,108
Mathematical sciences	5,577	5,480	5,583	5,601	5,927	5,712	5,686	5,580
Computer sciences	16,329	16,715	17,094	16,876	17,681	18,160	18,835	18,889
Agricultural sciences	2,111	2,015	2,005	2,116	2,209	2,212	2,378	2,446
Biological sciences	8,964	8,531	8,371	8,511	9,058	9,094	9,799	9,993
Anatomy	80	87	83	79	89	90	70	50
Biochemistry	245	209	190	272	214	247	331	340
Biology	4,122	3,792	3,667	3,592	3,878	3,853	4,196	4,293
Biometry/epidemiology	386	390	469	511	640	601	734	675
Biophysics	98	123	48	45	37	18	23	25
Botany	386	409	380	388	388	399	392	371
Cell biology	61	78	55	57	70	93	132	185
Ecology	155	167	169	211	252	261	304	353
Entomology/parasitology	199	182	179	172	176	157	177	208
Genetics	91	106	102	111	111	108	113	95
Microbio., immunology, & virology	503	436	465	498	501	520	512	460
Nutrition	1,262	1,256	1,335	1,380	1,343	1,286	1,294	1,348
Pathology	306	304	273	267	277	343	298	286
Pharmacology	122	150	138	132	131	128	132	145
Physiology	215	217	212	149	160	169	157	152
Zoology	363	326	315	315	427	409	350	373
Biosciences, n.e.c.	370	299	291	332	364	412	584	634
Psychology	14,986	15,356	15,860	16,473	17,863	19,436	19,567	20,266
Social sciences	27,392	27,836	27,906	28,971	29,577	30,209	31,618	33,825
Agricultural economics	284	346	350	364	312	353	417	452
Anthropology (cultural & social)	1,744	1,727	1,669	1,717	1,670	1,652	1,786	1,949
Economics (except agricultural)	3,144	3,028	3,019	3,061	3,033	2,857	3,068	3,207
Geography	947	933	993	1,121	1,156	1,221	1,301	1,352
Linguistics	751	833	724	821	818	876	800	816
Political science	13,821	14,541	14,560	15,249	15,335	15,692	16,192	17,114
Sociology	1,931	1,953	1,997	2,120	2,106	2,449	2,552	2,841
Sociology/anthropology	437	422	425	389	428	298	351	338
Social sciences, other	4,333	4,053	4,169	4,129	4,719	4,811	5,151	5,756
Engineering, total	41,692	42,006	39,878	39,636	41,624	42,543	43,562	43,144
Aerospace engineering	650	643	690	752	924	795	730	682
Agricultural engineering	177	143	164	182	147	158	168	183
Biomedical engineering	251	293	302	306	338	314	370	403
Chemical engineering	1,418	1,437	1,259	1,178	1,292	1,339	1,451	1,475
Civil engineering	5,005	5,054	4,865	4,945	5,414	6,070	7,118	7,178
Electrical engineering	13,679	14,298	14,329	14,791	15,047	15,278	15,464	14,939
Engineering science	917	970	968	818	768	790	803	786
Industrial eng./management sci.	7,706	8,049	7,081	6,401	6,460	7,062	7,434	7,766
Mechanical engineering	5,924	6,136	5,760	5,748	5,972	6,043	6,204	6,033
Metallurgical/materials eng.	838	930	871	874	1,013	1,102	1,239	1,112
Nuclear engineering	206	235	198	211	198	202	202	236
Engineering, other	4,921	3,818	3,391	3,430	4,051	3,390	2,379	2,351
Total, health fields	24,083	24,311	24,817	26,036	27,640	28,711	30,977	33,022
Clinical fields	529	559	510	375	392	470	670	680
Dental sciences	113	148	155	148	1[illegible]	141	133	130
Nursing	12,523	12,522	12,838	13,702	15,046	15,537	16,877	18,022
Pharmaceutical sciences	841	783	706	742	741	770	730	738
Preventive medicine/community health	3,147	3,394	3,354	3,384	3,635	3,974	3,907	4,567
Speech pathology/audiology	2,428	2,284	2,267	2,309	2,587	2,446	2,647	2,639
Veterinary sciences	124	139	146	133	191	177	188	184
Other health fields	4,378	4,482	4,841	5,243	4,929	5,196	5,825	6,062

[1] Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1985 through 1987. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

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Table 16. Science and engineering graduate students in doctorate-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	366,270	371,722	377,335	384,702	398,297	413,721	432,323	440,875
Total, science and engineering fields	326,108	331,153	335,314	340,526	351,255	364,253	379,309	383,991
Sciences, total	230,661	234,098	238,586	243,125	251,439	258,908	270,057	275,311
Physical sciences	30,600	31,142	31,425	31,974	32,519	33,027	33,703	33,595
Astronomy	689	719	731	789	810	829	869	880
Chemistry	17,675	17,748	17,574	17,792	18,114	18,363	18,896	19,056
Physics	11,979	12,424	12,893	13,193	13,386	13,613	13,723	13,451
Physical sciences, n.e.c.	257	251	227	200	209	222	215	208
Earth, atmospheric, & ocean sciences	13,936	13,257	12,822	12,619	12,892	13,210	13,833	14,132
Atmospheric sciences	956	948	929	900	925	956	1,076	1,095
Geosciences	9,220	8,425	7,950	7,610	7,234	7,105	7,269	7,326
Oceanography	2,027	2,022	1,926	2,090	2,216	2,274	2,402	2,515
Earth, atmos., & ocean sci., n.e.c.	1,733	1,862	2,017	2,019	2,517	2,875	3,086	3,196
Mathematical sciences	15,785	16,339	16,985	17,017	17,406	17,716	18,089	17,776
Mathematics & applied mathematics	13,497	13,890	14,439	14,537	14,775	15,018	15,203	14,779
Statistics	2,288	2,449	2,546	2,480	2,631	2,698	2,886	2,997
Computer sciences	25,449	26,239	26,671	26,760	28,099	28,311	29,615	30,041
Agricultural sciences	10,806	10,458	10,446	10,526	10,592	10,793	11,122	11,169
Biological sciences	43,023	43,141	44,132	45,217	46,345	48,086	50,216	52,059
Anatomy	973	1,016	1,056	1,078	1,000	1,051	1,030	1,027
Biochemistry	4,818	4,762	4,887	5,041	5,003	5,160	5,332	5,466
Biology	9,734	9,521	9,704	9,968	10,167	10,466	10,928	11,172
Biometry epidemiology	1,434	1,556	1,682	1,722	1,871	2,031	2,368	2,665
Biophysics	547	591	592	655	642	697	751	780
Botany	3,121	2,975	2,911	2,828	2,740	2,701	2,694	2,733
Cell biology	1,716	1,964	2,078	2,234	2,555	2,809	3,093	3,379
Ecology	966	899	934	1,012	1,042	1,079	1,155	1,251
Entomology parasitology	1,306	1,244	1,240	1,181	1,173	1,171	1,193	1,247
Genetics	1,219	1,273	1,247	1,321	1,364	1,478	1,599	1,733
Microbio., immunology, & virology	4,311	4,388	4,725	4,786	4,830	4,890	4,932	5,022
Nutrition	3,942	3,852	3,839	3,829	3,897	3,863	3,801	3,870
Pathology	1,283	1,325	1,286	1,316	1,303	1,404	1,410	1,527
Pharmacology	2,076	2,071	2,123	2,265	2,353	2,432	2,538	2,653
Physiology	2,220	2,213	2,220	2,206	2,236	2,332	2,317	2,372
Zoology	2,057	2,088	2,017	2,069	2,091	2,168	2,117	2,115
Biosciences, n.e.c.	1,300	1,403	1,591	1,706	2,078	2,354	2,958	3,047
Psychology	31,153	32,200	33,658	34,643	36,207	38,203	39,483	39,892
Psychology, general	102	241	11,367	12,586	13,319	15,208	15,745	16,437
Clinical psychology	30,492	31,371	15,488	13,996	14,384	13,671	13,433	12,843
Psychology, n.e.c.	559	588	6,803	8,061	8,504	9,324	10,305	10,612
Social sciences	59,909	61,322	62,447	64,369	67,379	69,562	73,996	76,647
Agricultural economics	2,184	2,152	2,209	2,227	2,232	2,311	2,454	2,334
Anthropology (cultural & social)	5,550	5,575	5,682	5,880	6,210	6,437	6,815	7,081
Economics (except agricultural)	11,163	11,118	11,230	11,325	11,550	11,873	12,302	12,320
Geography	2,558	2,663	2,587	2,801	2,902	3,108	3,427	3,649
History and philosophy of science	266	294	288	304	331	337	360	369
Linguistics	2,858	2,990	2,916	2,976	3,114	3,135	2,930	2,972
Political science	22,011	22,619	22,872	23,890	24,902	25,833	27,817	29,019
Sociology	5,871	6,290	6,423	6,661	6,943	7,329	7,830	8,147
Sociology anthropology	904	882	912	946	1,112	875	967	925
Social sciences, n.e.c.	6,544	6,739	7,328	7,359	8,083	8,324	9,094	9,831
Engineering, total	95,447	97,055	96,728	97,401	99,816	105,345	109,252	108,680
Aerospace engineering	2,771	2,980	3,186	3,457	3,843	4,053	3,999	3,913
Agricultural engineering	1,071	1,080	1,052	1,043	946	986	1,008	1,018
Biomedical engineering	1,466	1,598	1,673	1,850	2,073	2,191	2,485	2,610
Chemical engineering	6,834	6,934	6,484	6,356	6,599	6,975	7,226	7,338
Civil engineering	14,117	13,550	13,836	14,016	14,515	16,115	17,952	18,024
Electrical engineering	28,162	29,418	30,100	30,665	30,645	32,003	33,038	32,252
Engineering science	2,128	2,111	2,167	2,058	2,002	2,124	2,185	2,153
Industrial eng., management sci.	10,791	11,413	10,656	10,170	10,102	11,474	12,328	12,490
Mechanical engineering	14,687	15,293	15,143	15,122	15,578	16,615	17,459	17,404
Metallurgical materials eng.	4,107	4,272	4,257	4,510	4,844	5,043	5,361	5,220
Mining engineering	487	484	450	388	409	475	426	411
Nuclear engineering	1,265	1,279	1,303	1,323	1,278	1,282	1,286	1,306
Petroleum engineering	726	790	711	651	656	694	721	711
Engineering, n.e.c.	6,835	5,853	5,710	5,792	6,326	5,315	3,778	3,830

See explanatory information, if any, and SOURCE(S) at end of table.

Table 16. Science and engineering graduate students in doctorate-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, health fields	40,162	40,569	42,021	44,176	47,042	49,468	53,014	56,884
Medical fields	8,759	9,309	9,606	9,755	10,438	11,045	11,798	13,142
Anesthesiology	123	178	197	276	329	443	511	494
Cardiology	3	0	0	0	0	2	8	11
Oncology/cancer research	69	81	89	104	113	156	200	212
Endocrinology	57	63	70	82	74	66	71	63
Gastroenterology	4	0	0	0	1	0	0	1
Hematology	9	7	6	4	4	4	5	3
Neurology	391	503	612	744	844	1,003	1,149	1,311
Obstetrics and gynecology	4	8	9	7	5	10	3	11
Ophthalmology	18	19	51	43	37	32	27	19
Otorhinolaryngology	6	8	6	9	4	3	0	1
Pediatrics	163	218	227	136	140	153	154	196
Preventive medicine/community health	6,976	7,279	7,352	7,383	7,871	8,010	8,350	9,377
Psychiatry	125	122	106	67	71	46	96	103
Pulmonary disease	3	2	3	2	0	0	0	0
Radiology	220	183	208	192	196	233	252	287
Surgery	48	60	64	72	65	69	76	82
Clinical medicine, n.e.c.	540	578	606	634	684	815	896	971
Other health fields	31,403	31,260	32,415	34,421	36,604	38,423	41,216	43,742
Dental sciences	947	1,062	1,083	1,004	956	1,016	1,121	1,135
Nursing	16,077	15,998	16,343	17,074	18,468	18,781	19,775	20,609
Pharmaceutical sciences	2,672	2,602	2,609	2,779	2,887	2,967	2,788	2,851
Speech pathology/audiology	5,847	5,349	5,754	5,989	6,251	6,576	7,361	7,863
Veterinary sciences	607	711	735	782	881	875	923	853
Health related, n.e.c.	5,253	5,538	5,891	6,793	7,161	8,208	9,248	10,431

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 17. Science and engineering graduate students in doctorate-granting institutions, by geographic distribution: 1986-93

Division and State	1986	1987	1988	1989	1990	1991	1992	1993
Total, all institutions	366,270	371,722	377,335	384,702	398,297	413,721	432,323	440,875
New England	27,859	27,869	28,881	28,348	30,011	30,901	31,661	32,544
Connecticut	4,247	4,498	4,527	4,516	4,816	4,850	4,920	5,046
Maine	538	614	649	667	689	747	854	842
Massachusetts	19,582	19,196	20,064	19,498	20,789	21,538	21,789	22,552
New Hampshire	869	882	973	986	1,013	1,059	1,125	1,174
Rhode Island	1,993	2,074	2,018	2,063	2,079	2,059	2,259	2,238
Vermont	630	605	650	618	625	648	714	692
Middle Atlantic	66,707	66,520	67,180	67,549	68,072	69,643	72,438	72,411
New Jersey	10,377	10,839	11,167	10,879	10,687	10,732	10,929	10,999
New York	38,807	38,315	38,293	38,667	39,127	39,477	41,772	41,539
Pennsylvania	17,523	17,366	17,720	18,003	18,258	19,434	19,737	19,873
East North Central	64,478	67,116	68,595	70,344	73,190	75,985	78,593	80,244
Illinois	17,778	18,615	18,942	19,458	20,148	20,603	21,413	21,755
Indiana	7,655	8,012	8,060	8,761	9,200	9,574	10,099	10,344
Michigan	13,500	13,792	13,816	14,558	15,091	15,714	16,574	17,086
Ohio	17,914	18,913	19,865	19,454	20,423	21,440	21,723	22,023
Wisconsin	7,631	7,784	7,912	8,113	8,328	8,654	8,784	9,036
West North Central	24,099	24,116	24,757	25,190	26,093	27,004	28,106	28,664
Iowa	4,765	4,777	4,965	4,931	5,259	5,462	5,513	5,642
Kansas	4,230	4,387	4,501	4,605	4,761	4,927	5,362	5,482
Minnesota	5,570	5,319	5,481	5,626	5,625	5,798	5,925	6,198
Missouri	6,077	6,179	6,214	6,317	6,592	6,610	6,778	6,658
Nebraska	1,676	1,690	1,805	1,856	1,965	2,145	2,357	2,453
North Dakota	970	915	947	947	886	931	985	981
South Dakota	811	849	844	908	1,005	1,131	1,186	1,250
South Atlantic	54,770	56,695	57,779	59,407	62,845	66,009	70,460	73,138
Delaware	1,189	1,303	1,198	1,239	1,357	1,461	1,560	1,685
District of Columbia	9,104	9,198	8,286	8,026	8,243	8,383	9,149	9,392
Florida	10,017	10,844	11,873	12,309	13,309	14,488	15,682	16,789
Georgia	6,352	6,678	6,728	6,875	7,252	7,816	8,505	8,791
Maryland	6,525	6,503	7,144	7,498	7,770	8,073	8,365	8,563
North Carolina	7,720	7,799	7,977	8,411	8,642	8,851	9,413	9,218
South Carolina	3,220	3,312	3,167	3,386	3,538	3,854	4,168	4,205
Virginia	9,068	9,572	9,818	10,051	10,975	11,179	11,592	12,281
West Virginia	1,575	1,486	1,588	1,612	1,759	1,904	2,026	2,214
East South Central	14,677	14,854	16,054	17,091	17,615	18,387	19,128	19,881
Alabama	4,278	4,555	4,824	5,235	5,615	5,915	6,095	6,442
Kentucky	2,654	2,786	2,910	3,054	3,102	3,213	3,368	3,345
Mississippi	2,573	2,505	2,646	2,778	2,712	2,805	2,831	3,027
Tennessee	5,172	5,008	5,674	6,024	6,186	6,454	6,834	7,067
West South Central	33,150	32,798	33,001	34,532	36,262	38,540	41,237	41,185
Arkansas	1,161	1,180	1,053	1,029	1,108	1,169	1,290	1,534
Louisiana	4,381	4,339	4,239	4,322	4,615	5,279	5,734	5,852
Oklahoma	4,000	4,281	4,078	4,240	4,383	4,624	4,920	4,927
Texas	23,608	22,998	23,631	24,941	26,156	27,468	29,293	28,872
Mountain	23,761	24,466	24,663	25,130	26,460	28,141	30,094	31,350
Arizona	6,748	6,800	7,115	7,224	7,325	7,468	7,762	8,176
Colorado	7,056	7,399	7,278	7,232	8,002	8,642	9,149	9,327
Idaho	1,035	1,173	1,225	1,405	1,524	1,512	1,568	1,701
Montana	889	891	940	967	978	1,044	1,191	1,276
Nevada	514	616	868	1,021	1,134	1,279	1,465	1,504
New Mexico	2,647	2,815	2,760	2,765	2,919	3,019	3,454	3,635
Utah	4,112	4,013	3,760	3,714	3,727	4,249	4,549	4,733
Wyoming	760	759	717	802	851	928	956	998
Pacific	54,249	54,990	54,228	54,843	55,383	56,521	57,878	58,711
Alaska	399	387	404	444	487	480	571	603
California	43,143	43,895	42,925	43,668	43,568	44,059	45,240	45,634
Hawaii	1,820	1,822	1,829	1,857	1,981	2,088	2,061	2,176
Oregon	3,429	3,454	3,598	3,555	3,786	4,075	4,225	4,366
Washington	5,458	5,432	5,472	5,319	5,561	5,819	5,781	5,932
Outlying areas	2,520	2,298	2,197	2,268	2,366	2,590	2,728	2,747

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 18. Full-time science and engineering graduate students in doctorate-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	249,048	253,602	259,059	265,973	274,590	287,104	301,048	307,181
Total, science and engineering fields	228,181	232,331	236,858	242,637	249,825	260,602	272,551	275,944
Sciences, total	169,777	172,264	175,673	180,105	185,856	191,544	200,406	204,250
Physical sciences	27,020	27,720	27,867	28,461	28,822	29,413	30,035	29,913
Astronomy	654	679	705	762	790	810	840	848
Chemistry	15,547	15,759	15,614	15,816	15,979	16,318	16,636	16,792
Physics	10,688	11,122	11,426	11,784	11,952	12,176	12,431	12,155
Physical sciences, n.e.c.	131	160	122	99	101	109	128	118
Earth, atmospheric, & ocean sciences	10,785	9,989	9,753	9,631	9,854	9,922	10,477	10,802
Atmospheric sciences	854	822	825	803	828	857	958	978
Geosciences	7,107	6,411	6,069	5,796	5,600	5,522	5,693	5,790
Oceanography	1,652	1,603	1,576	1,752	1,887	1,931	2,061	2,171
Earth, atmos., & ocean sci., n.e.c.	1,172	1,153	1,283	1,280	1,539	1,612	1,765	1,863
Mathematical sciences	11,738	12,352	12,827	13,034	13,220	13,576	13,962	13,830
Computer sciences	13,400	13,636	13,648	14,119	14,785	14,774	15,650	15,803
Agricultural sciences	8,963	8,727	8,732	8,696	8,705	8,852	9,076	9,056
Biological sciences	36,287	36,760	37,778	38,890	39,515	41,224	42,806	44,650
Anatomy	893	929	973	999	911	961	960	977
Biochemistry	4,591	4,584	4,720	4,793	4,808	4,940	5,030	5,151
Biology	7,304	7,337	7,534	7,959	7,948	8,228	8,394	8,637
Biometry/epidemiology	1,048	1,166	1,213	1,211	1,231	1,431	1,634	1,990
Biophysics	449	468	544	610	605	679	728	755
Botany	2,744	2,571	2,536	2,444	2,360	2,305	2,304	2,369
Cell biology	1,655	1,886	2,023	2,177	2,485	2,716	2,961	3,203
Ecology	854	784	816	866	878	908	976	1,040
Entomology/parasitology	1,107	1,062	1,061	1,009	997	1,014	1,016	1,039
Genetics	1,129	1,167	1,146	1,211	1,255	1,371	1,488	1,640
Microbio., immunology, & virology	3,856	4,000	4,301	4,321	4,361	4,401	4,445	4,586
Nutrition	2,905	2,816	2,716	2,687	2,770	2,808	2,764	2,834
Pathology	1,015	1,062	1,061	1,100	1,065	1,104	1,162	1,299
Pharmacology	1,956	1,922	1,986	2,135	2,222	2,304	2,406	2,509
Physiology	2,005	1,996	2,008	2,057	2,076	2,163	2,160	2,220
Zoology	1,700	1,766	1,703	1,760	1,671	1,760	1,768	1,743
Biosciences, n.e.c.	1,076	1,244	1,437	1,551	1,872	2,131	2,610	2,658
Psychology	22,166	22,897	23,945	24,858	25,603	26,626	27,817	28,256
Social sciences	39,418	40,183	41,123	42,416	45,352	47,157	50,583	51,940
Agricultural economics	1,915	1,823	1,878	1,885	1,934	1,976	2,069	1,910
Anthropology (cultural & social)	3,993	4,025	4,197	4,320	4,719	4,977	5,219	5,319
Economics (except agricultural)	8,619	8,652	8,734	8,795	8,997	9,507	9,773	9,745
Geography	1,916	2,034	1,941	2,091	2,140	2,282	2,545	2,731
Linguistics	2,311	2,391	2,457	2,406	2,552	2,510	2,401	2,468
Political science	11,843	11,633	12,027	12,684	13,813	14,432	16,064	16,819
Sociology	4,334	4,723	4,822	4,989	5,375	5,551	6,000	6,087
Sociology/anthropology	550	527	538	607	733	611	654	655
Social sciences, other	3,937	4,375	4,529	4,639	5,089	5,311	5,858	6,206
Engineering, total	58,404	60,067	61,185	62,532	63,969	69,058	72,145	71,694
Aerospace engineering	2,138	2,355	2,517	2,742	2,946	3,258	3,269	3,231
Agricultural engineering	894	937	888	861	799	828	840	835
Biomedical engineering	1,269	1,341	1,397	1,571	1,761	1,900	2,138	2,234
Chemical engineering	5,500	5,590	5,291	5,248	5,405	5,733	5,873	5,950
Civil engineering	9,661	9,341	9,617	9,671	9,872	10,988	11,970	11,981
Electrical engineering	15,760	16,489	17,048	17,727	17,918	19,172	20,183	19,706
Engineering science	1,427	1,356	1,405	1,249	1,241	1,357	1,408	1,397
Industrial eng./management sci.	3,678	4,022	4,150	4,472	4,491	5,406	5,832	5,658
Mechanical engineering	9,565	10,002	10,173	10,215	10,516	11,396	12,070	12,152
Metallurgical/materials eng.	3,342	3,412	3,448	3,696	3,916	4,046	4,262	4,232
Nuclear engineering	1,059	1,044	1,105	1,112	1,080	1,080	1,084	1,070
Engineering, other	4,111	4,178	4,146	3,968	4,024	3,894	3,216	3,248
Total, health fields	20,867	21,271	22,201	23,336	24,765	26,502	28,497	31,237
Clinical fields	1,042	1,146	1,249	1,364	1,448	1,682	1,876	2,059
Dental sciences	834	914	928	856	827	875	988	1,005
Nursing	5,379	5,377	5,401	5,381	5,553	5,661	5,616	5,962
Pharmaceutical sciences	1,841	1,823	1,906	2,045	2,148	2,198	2,074	2,130
Preventive medicine/community health	4,021	4,104	4,172	4,170	4,427	4,335	4,710	5,207
Speech pathology/audiology	4,290	3,942	4,289	4,515	4,568	4,995	5,563	6,142
Veterinary sciences	486	575	589	649	698	706	743	673
Other health fields	2,974	3,390	3,667	4,356	5,096	6,050	6,927	8,059

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 19. Part-time science and engineering graduate students in doctorate-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	117,222	118,120	118,276	118,729	123,707	126,617	131,275	133,694
Total, science and engineering fields	97,927	98,822	98,456	97,889	101,430	103,651	106,758	108,047
Sciences, total	60,884	61,834	62,913	63,020	65,583	67,364	69,651	71,061
Physical sciences	3,580	3,422	3,558	3,513	3,697	3,614	3,668	3,682
Astronomy	35	40	26	27	20	19	29	32
Chemistry	2,128	1,989	1,960	1,976	2,135	2,045	2,260	2,264
Physics	1,291	1,302	1,467	1,409	1,434	1,437	1,292	1,296
Physical sciences, n.e.c.	126	91	105	101	108	113	87	90
Earth, atmospheric, & ocean sciences	3,151	3,268	3,069	2,988	3,038	3,288	3,356	3,330
Atmospheric sciences	102	126	104	97	97	99	118	117
Geosciences	2,113	2,014	1,881	1,814	1,634	1,583	1,576	1,536
Oceanography	375	419	350	338	329	343	341	344
Earth, atmos., & ocean sci., n.e.c.	561	709	734	739	978	1,263	1,321	1,333
Mathematical sciences	4,047	3,987	4,158	3,983	4,186	4,140	4,127	3,946
Computer sciences	12,049	12,603	13,023	12,641	13,314	13,537	13,965	14,238
Agricultural sciences	1,843	1,731	1,714	1,830	1,887	1,941	2,046	2,113
Biological sciences	6,736	6,381	6,354	6,327	6,830	6,862	7,410	7,409
Anatomy	80	87	83	79	89	90	70	50
Biochemistry	227	178	167	248	195	220	302	315
Biology	2,430	2,184	2,170	2,009	2,219	2,238	2,534	2,535
Biometry/epidemiology	386	390	469	511	640	600	734	675
Biophysics	98	123	48	45	37	18	23	25
Botany	377	404	375	384	380	396	390	364
Cell biology	61	78	55	57	70	93	132	176
Ecology	112	115	118	146	164	171	179	211
Entomology/parasitology	199	182	179	172	176	157	177	208
Genetics	90	106	101	110	109	107	111	93
Microbio., immunology, & virology	455	388	424	465	469	489	487	436
Nutrition	1,037	1,036	1,123	1,142	1,127	1,055	1,037	1,036
Pathology	268	263	225	216	238	300	248	228
Pharmacology	120	149	137	130	131	128	132	144
Physiology	215	217	212	149	160	169	157	152
Zoology	357	322	314	309	420	408	349	372
Biosciences, n.e.c.	224	159	154	155	206	223	348	389
Psychology	8,987	9,303	9,713	9,785	10,604	11,577	11,666	11,636
Social sciences	20,491	21,139	21,324	21,953	22,027	22,405	23,413	24,707
Agricultural economics	269	329	331	342	298	335	385	424
Anthropology (cultural & social)	1,557	1,550	1,485	1,560	1,491	1,460	1,596	1,762
Economics (except agricultural)	2,544	2,466	2,496	2,530	2,553	2,366	2,529	2,575
Geography	642	629	646	710	762	826	882	918
Linguistics	547	599	459	570	562	625	529	504
Political science	10,168	10,986	10,845	11,206	11,089	11,401	11,753	12,200
Sociology	1,537	1,567	1,601	1,672	1,568	1,778	1,830	2,060
Sociology/anthropology	354	355	374	339	379	264	313	270
Social sciences, other	2,873	2,658	3,087	3,024	3,325	3,350	3,596	3,994
Engineering, total	37,043	36,988	35,543	34,869	35,847	36,287	37,107	36,986
Aerospace engineering	633	625	669	715	897	795	730	682
Agricultural engineering	177	143	164	182	147	158	168	183
Biomedical engineering	197	257	276	279	312	291	347	376
Chemical engineering	1,334	1,344	1,193	1,108	1,194	1,242	1,353	1,388
Civil engineering	4,456	4,209	4,219	4,345	4,643	5,127	5,982	6,043
Electrical engineering	12,402	12,929	13,052	12,938	12,727	12,831	12,855	12,546
Engineering science	701	755	762	809	761	767	777	756
Industrial eng./management sci.	7,113	7,391	6,506	5,698	5,611	6,068	6,496	6,832
Mechanical engineering	5,122	5,291	4,970	4,907	5,062	5,219	5,389	5,252
Metallurgical/materials eng.	765	860	809	814	928	997	1,099	988
Nuclear engineering	206	235	198	211	198	202	202	236
Engineering, other	3,937	2,949	2,725	2,863	3,367	2,590	1,709	1,704
Total, health fields	19,295	19,298	19,820	20,840	22,277	22,966	24,517	25,647
Clinical fields	350	381	393	264	275	350	423	395
Dental sciences	113	148	155	148	129	141	133	130
Nursing	10,698	10,621	10,942	11,693	12,915	13,120	14,159	14,647
Pharmaceutical sciences	831	779	703	734	739	769	714	721
Preventive medicine/community health	2,955	3,175	3,180	3,213	3,444	3,675	3,640	4,170
Speech pathology/audiology	1,557	1,407	1,465	1,474	1,683	1,581	1,798	1,721
Veterinary sciences	121	136	146	133	183	169	180	180
Other health fields	2,670	2,651	2,836	3,181	2,909	3,161	3,470	3,683

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 20. Science and engineering graduate students in master's-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	49,430	49,929	47,639	50,381	54,640	58,413	62,136	65,803
Total, science and engineering fields	42,104	42,272	40,265	42,701	46,611	49,306	52,135	54,061
Sciences, total	35,695	35,390	34,049	36,058	38,805	41,009	43,270	45,635
Physical sciences	1,646	1,585	1,537	1,642	1,611	1,769	1,712	1,800
Astronomy	0	0	0	0	0	0	0	0
Chemistry	1,069	1,079	1,005	1,036	1,004	1,044	1,033	1,086
Physics	458	383	415	464	482	526	465	456
Physical sciences, n.e.c.	119	123	117	142	125	199	214	258
Earth, atmospheric, & ocean sciences	1,130	1,114	1,083	1,049	1,132	1,322	1,580	1,759
Atmospheric sciences	5	4	11	12	4	12	13	17
Geosciences	599	573	513	442	458	462	475	458
Oceanography	101	105	107	117	117	112	128	138
Earth, atmos., & ocean sci., n.e.c.	425	432	452	478	553	736	964	1,146
Mathematical sciences	2,182	2,185	2,111	2,267	2,388	2,254	2,278	2,388
Mathematics & applied mathematics	2,136	2,141	2,070	2,223	2,341	2,206	2,213	2,310
Statistics	46	44	41	44	47	48	65	78
Computer sciences	5,900	5,812	5,556	5,722	6,272	6,387	6,718	6,306
Agricultural sciences	643	648	682	666	709	710	698	774
Biological sciences	3,757	3,629	3,453	3,655	3,672	3,726	4,015	4,481
Anatomy	0	0	0	0	0	0	0	0
Biochemistry	55	51	34	41	36	41	44	62
Biology	2,944	2,810	2,689	2,793	2,860	2,835	2,962	3,223
Biometry/epidemiology	0	0	0	0	0	1	0	0
Biophysics	0	0	0	0	0	0	0	0
Botany	28	30	25	16	21	21	24	9
Cell biology	0	0	0	0	0	0	0	12
Ecology	56	64	65	72	94	101	146	159
Entomology/parasitology	0	0	0	0	0	0	0	0
Genetics	43	41	42	44	44	42	40	52
Microbio., immunology, & virology	60	64	48	41	43	38	40	31
Nutrition	317	306	293	335	275	289	349	450
Pathology	40	56	57	66	67	71	77	90
Pharmacology	2	1	1	2	0	0	0	2
Physiology	0	0	0	0	0	0	0	0
Zoology	18	16	12	14	13	23	22	5
Biosciences, n.e.c.	194	190	187	231	219	264	311	386
Psychology	10,088	10,412	10,426	11,308	12,447	13,676	14,434	15,327
Psychology, general	16	26	4,110	4,532	5,179	6,145	7,292	7,396
Clinical psychology	10,037	10,355	5,313	5,686	6,020	6,173	5,504	6,167
Psychology, n.e.c.	35	31	1,003	1,090	1,248	1,358	1,638	1,764
Social sciences	10,349	10,005	9,201	9,749	10,574	11,165	11,835	12,800
Agricultural economics	64	51	50	49	41	53	68	81
Anthropology (cultural & social)	255	260	263	248	269	294	308	297
Economics (except agricultural)	940	880	795	802	762	822	937	994
Geography	497	560	621	678	628	652	675	729
History and philosophy of science	0	0	0	0	0	0	0	0
Linguistics	251	292	327	310	290	290	347	415
Political science	5,167	4,869	4,909	5,318	5,722	5,906	6,095	6,536
Sociology	661	696	664	732	854	1,045	1,148	1,257
Sociology/anthropology	117	100	79	76	87	75	77	94
Social sciences, n.e.c.	2,397	2,297	1,493	1,536	1,921	2,028	2,180	2,397
Engineering, total	6,409	6,882	6,216	6,643	7,806	8,297	8,865	8,426
Aerospace engineering	33	35	37	67	91	67	37	35
Agricultural engineering	0	0	0	0	0	0	0	0
Biomedical engineering	68	76	79	66	63	48	52	62
Chemical engineering	178	177	134	104	136	152	171	158
Civil engineering	859	1,132	975	893	1,027	1,283	1,605	1,651
Electrical engineering	1,807	1,981	1,935	2,592	3,077	3,179	3,436	3,125
Engineering science	234	232	219	19	18	30	33	32
Industrial eng./management sci.	720	791	719	895	1,137	1,195	1,194	1,158
Mechanical engineering	1,026	1,073	1,043	1,090	1,210	1,115	1,178	1,070
Metallurgical/materials eng.	101	94	80	84	105	125	159	147
Mining engineering	25	29	39	30	28	14	11	16
Nuclear engineering	0	0	0	0	0	0	0	0
Petroleum engineering	21	28	31	14	14	11	16	14
Engineering, n.e.c.	1,337	1,234	925	789	900	1,078	973	958

See explanatory information, if any, and SOURCE(S) at end of table

Table 20. Science and engineering graduate students in master's-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, health fields	7,326	7,657	7,374	7,680	8,029	9,107	10,001	11,742
Medical fields	485	500	457	452	472	610	733	960
Anesthesiology	0	0	77	79	62	86	197	225
Cardiology	0	0	0	0	0	0	0	0
Oncology/cancer research	0	0	0	0	0	0	0	0
Endocrinology	0	0	0	0	0	0	0	0
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	0	0	0
Neurology	0	0	0	0	0	0	0	0
Obstetrics and gynecology	0	0	0	0	0	0	0	0
Ophthalmology	0	0	0	0	0	0	0	0
Otorhinolaryngology	0	0	0	0	0	0	0	0
Pediatrics	0	0	0	0	0	0	0	0
Preventive medicine/community health	246	277	226	214	256	361	321	506
Psychiatry	26	35	48	44	51	58	51	69
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	0	0	0	0	0	0	0	0
Surgery	0	0	0	0	0	0	0	0
Clinical medicine, n.e.c.	213	188	106	115	103	105	164	160
Other health fields	6,841	7,157	6,917	7,228	7,557	8,497	9,268	10,782
Dental sciences	0	0	0	0	0	0	0	0
Nursing	2,321	2,446	2,519	2,615	2,726	3,231	3,458	4,215
Pharmaceutical sciences	10	5	4	8	2	1	16	20
Speech pathology/audiology	1,927	1,965	1,725	1,922	2,103	2,369	2,430	2,901
Veterinary sciences	23	20	17	19	19	19	19	24
Health related, n.e.c.	2,560	2,721	2,652	2,664	2,707	2,877	3,345	3,622

NOTE: Master's-granting institutions were surveyed on a sample basis from 1985 through 1987. Data shown here are therefore subject to sampling error. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 21. Full-time science and engineering graduate students in master's-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	17,217	17,548	16,307	16,840	18,368	20,145	21,847	23,068
Total, science and engineering fields	14,679	14,904	13,930	14,356	15,702	16,783	18,306	18,701
Sciences, total	12,919	13,040	12,049	12,480	13,673	14,742	15,896	16,433
Physical sciences	742	692	707	746	670	712	640	706
Astronomy	0	0	0	0	0	0	0	0
Chemistry	453	476	474	462	403	413	363	418
Physics	267	182	212	256	246	273	260	244
Physical sciences, n.e.c.	22	34	21	28	21	26	17	44
Earth, atmospheric, & ocean sciences	464	446	446	396	408	473	534	601
Atmospheric sciences	1	2	4	7	0	2	1	2
Geosciences	277	255	241	187	199	166	192	181
Oceanography	42	48	53	47	47	60	72	47
Earth, atmos., & ocean sci., n.e.c.	144	141	148	155	162	245	269	371
Mathematical sciences	652	692	686	649	647	682	719	754
Computer sciences	1,620	1,700	1,485	1,487	1,905	1,764	1,848	1,655
Agricultural sciences	375	364	391	380	387	439	366	441
Biological sciences	1,529	1,479	1,436	1,471	1,444	1,494	1,626	1,897
Anatomy	0	0	0	0	0	0	0	0
Biochemistry	37	20	11	17	17	14	15	37
Biology	1,252	1,202	1,192	1,210	1,201	1,220	1,300	1,465
Biometry epidemiology	0	0	0	0	0	0	0	0
Biophysics	0	0	0	0	0	0	0	0
Botany	19	25	20	12	13	18	22	2
Cell biology	0	0	0	0	0	0	0	3
Ecology	13	12	14	7	6	11	21	17
Entomology parasitology	0	0	0	0	0	0	0	0
Genetics	42	41	41	43	42	41	38	50
Microbio., immunology, & virology	12	16	7	8	11	7	15	7
Nutrition	92	86	81	97	59	58	92	138
Pathology	2	15	9	15	28	28	27	32
Pharmacology	0	0	0	0	0	0	0	1
Physiology	0	0	0	0	0	0	0	0
Zoology	12	12	11	8	6	22	21	4
Biosciences, n.e.c.	48	50	50	54	61	75	75	141
Psychology	4,089	4,359	4,279	4,620	5,188	5,817	6,533	6,697
Social sciences	3,448	3,308	2,619	2,731	3,024	3,361	3,630	3,682
Agricultural economics	49	34	31	27	27	35	36	53
Anthropology (cultural & social)	68	83	79	91	90	102	118	110
Economics (except agricultural)	340	318	272	271	282	331	398	362
Geography	192	256	274	267	234	257	256	295
Linguistics	47	58	62	59	34	39	76	103
Political science	1,514	1,314	1,194	1,275	1,476	1,615	1,656	1,622
Sociology	267	310	268	284	316	374	426	476
Sociology anthropology	34	33	28	26	38	41	39	26
Social sciences, other	937	902	411	431	527	567	625	635
Engineering, total	1,760	1,864	1,881	1,876	2,029	2,041	2,410	2,268
Aerospace engineering	16	17	16	30	64	67	37	35
Agricultural engineering	0	0	0	0	0	0	0	0
Biomedical engineering	14	40	53	39	37	25	29	35
Chemical engineering	94	84	68	34	38	55	73	71
Civil engineering	310	287	329	293	256	340	469	516
Electrical engineering	530	612	658	739	757	732	827	732
Engineering science	18	17	13	10	11	7	7	2
Industrial eng., management sci.	127	133	144	192	288	201	256	224
Mechanical engineering	224	228	253	249	300	291	363	289
Metallurgical materials eng.	28	24	18	24	20	20	19	23
Nuclear engineering	0	0	0	0	0	0	0	0
Engineering, other	399	422	329	266	258	303	330	341
Total, health fields	2,538	2,644	2,377	2,484	2,666	3,362	3,541	4,367
Clinical fields	60	45	114	127	109	129	165	169
Dental sciences	0	0	0	0	0	0	0	0
Nursing	496	545	623	606	595	814	740	840
Pharmaceutical sciences	0	1	1	0	0	0	0	3
Preventive medicine community health	54	58	52	43	65	62	54	109
Speech pathology audiology	1,056	1,088	923	1,087	1,199	1,504	1,581	1,983
Veterinary sciences	20	17	17	19	11	11	11	20
Other health fields	852	890	647	602	687	842	990	1,243

NOTE: Master's-granting institutions were surveyed on a sample basis from 1985 through 1987. Data shown here are therefore subject to sampling error. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 22. Part-time science and engineering graduate students in master's-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	32,213	32,381	31,332	33,541	36,272	38,268	40,289	42,735
Total, science and engineering fields	27,425	27,368	26,335	28,345	30,909	32,523	33,829	35,360
Sciences, total	22,776	22,350	22,000	23,578	25,132	26,267	27,374	29,202
Physical sciences	904	893	830	896	941	1,057	1,072	1,094
Astronomy	0	0	0	0	0	0	0	0
Chemistry	616	603	531	574	601	631	670	668
Physics	191	201	203	208	236	253	205	212
Physical sciences, n.e.c.	97	89	96	114	104	173	197	214
Earth, atmospheric, & ocean sciences	666	668	637	653	724	849	1,046	1,158
Atmospheric sciences	4	2	7	5	4	10	12	15
Geosciences	322	318	272	255	259	296	283	277
Oceanography	59	57	54	70	70	52	56	91
Earth, atmos., & ocean sci., n.e.c.	281	291	304	323	391	491	695	775
Mathematical sciences	1,530	1,493	1,425	1,618	1,741	1,572	1,559	1,634
Computer sciences	4,280	4,112	4,071	4,235	4,367	4,623	4,870	4,651
Agricultural sciences	268	284	291	286	322	271	332	333
Biological sciences	2,228	2,150	2,017	2,184	2,228	2,232	2,389	2,584
Anatomy	0	0	0	0	0	0	0	0
Biochemistry	18	31	23	24	19	27	29	25
Biology	1,692	1,608	1,497	1,583	1,659	1,615	1,662	1,758
Biometry/epidemiology	0	0	0	0	0	1	0	0
Biophysics	0	0	0	0	0	0	0	0
Botany	9	5	5	4	8	3	2	7
Cell biology	0	0	0	0	0	0	0	9
Ecology	43	52	51	65	88	90	125	142
Entomology/parasitology	0	0	0	0	0	0	0	0
Genetics	1	0	1	1	2	1	2	2
Microbio., immunology, & virology	48	48	41	33	32	31	25	24
Nutrition	225	220	212	238	216	231	257	312
Pathology	38	41	48	51	39	43	50	58
Pharmacology	2	1	1	2	0	0	0	1
Physiology	0	0	0	0	0	0	0	0
Zoology	6	4	1	6	7	1	1	1
Biosciences, n.e.c.	146	140	137	177	158	189	236	245
Psychology	5,999	6,053	6,147	6,688	7,259	7,859	7,901	8,630
Social sciences	6,901	6,697	6,582	7,018	7,550	7,804	8,205	9,118
Agricultural economics	15	17	19	22	14	18	32	28
Anthropology (cultural & social)	187	177	184	157	179	192	190	187
Economics (except agricultural)	600	562	523	531	480	491	539	632
Geography	305	304	347	411	394	395	419	434
Linguistics	204	234	265	251	256	251	271	312
Political science	3,653	3,555	3,715	4,043	4,246	4,291	4,439	4,914
Sociology	394	386	396	448	538	671	722	781
Sociology/anthropology	83	67	51	50	49	34	38	68
Social sciences, other	1,460	1,395	1,082	1,105	1,394	1,461	1,555	1,762
Engineering, total	4,649	5,018	4,335	4,767	5,777	6,256	6,455	6,158
Aerospace engineering	17	18	21	37	27	0	0	0
Agricultural engineering	0	0	0	0	0	0	0	0
Biomedical engineering	54	36	26	27	26	23	23	27
Chemical engineering	84	93	66	70	98	97	98	87
Civil engineering	549	845	646	600	771	943	1,136	1,135
Electrical engineering	1,277	1,369	1,277	1,853	2,320	2,447	2,609	2,393
Engineering science	216	215	206	9	7	23	26	30
Industrial eng./management sci.	593	658	575	703	849	994	938	934
Mechanical engineering	802	845	790	841	910	824	815	781
Metallurgical/materials eng.	73	70	62	60	85	105	140	124
Nuclear engineering	0	0	0	0	0	0	0	0
Engineering, other	984	869	666	567	684	800	670	647
Total, health fields	4,788	5,013	4,997	5,196	5,363	5,745	6,460	7,375
Clinical fields	179	178	117	111	107	120	247	285
Dental sciences	0	0	0	0	0	0	0	0
Nursing	1,825	1,901	1,896	2,009	2,131	2,417	2,718	3,375
Pharmaceutical sciences	10	4	3	8	2	1	16	17
Preventive medicine/community health	192	219	174	171	191	299	267	397
Speech pathology/audiology	871	877	802	835	904	865	849	918
Veterinary sciences	3	3	0	0	8	8	8	4
Other health fields	1,708	1,831	2,005	2,062	2,020	2,035	2,355	2,379

NOTE: Master's-granting institutions were surveyed on a sample basis from 1985 through 1987. Data shown here are therefore subject to sampling error. See "Technical Notes" for further information.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
Total, all institutions	506,678	320,946	117,106	68,626
New England	36,701	22,261	9,052	5,388
Connecticut	7,873	5,100	1,415	1,358
Central Connecticut State University	59	59	0	0
Connecticut College	24	24	0	0
Quinnipiac College	189	0	0	189
Southern Connecticut State University	656	396	0	260
St. Joseph College	166	97	0	69
The Hartford Graduate Center	699	324	375	0
Trinity College	48	48	0	0
University of Bridgeport	148	67	81	0
University of Connecticut	2,706	1,604	614	488
University of Hartford	378	271	17	90
University of New Haven	809	612	197	0
Wesleyan University	139	139	0	0
Western Connecticut State University	29	29	0	0
Yale University	1,823	1,430	131	262
Maine	842	633	153	56
University of Maine	806	630	153	23
University of New England	36	3	0	33
Massachusetts	23,695	13,494	6,664	3,537
American International College	123	123	0	0
Anna Maria College	48	35	0	13
Assumption College	197	86	0	111
Boston College	643	475	0	168
Boston University	3,388	1,865	576	947
Brandeis University	479	465	0	14
Bridgewater State College	48	48	0	0
Clark University	266	266	0	0
Emerson College	105	0	0	105
Framingham State College	12	12	0	0
Harvard University	3,610	3,045	199	366
MGH Institute of Health Professions	265	0	0	265
Mass College of Pharmacy Allied Health	34	20	0	14
Massachusetts Institute of Technology	4,427	1,989	2,361	77
Mount Holyoke College	11	11	0	0
Northeastern University	2,305	961	1,099	245
Salem State College	114	19	0	95
Smith College	7	7	0	0
Tufts University	1,158	631	363	164
University of Massachusetts	3,194	2,137	538	519
University of Massachusetts Dartmouth	206	105	67	34
University of Massachusetts Lowell	1,920	759	844	317
Western New England College	201	3	115	83
Williams College	34	34	0	0
Woods Hole Oceanographic Institution	112	89	23	0
Worcester Polytechnic Institute	781	302	479	0
Worcester State College	7	7	0	0
New Hampshire	1,247	873	272	102
Dartmouth College	385	280	105	0
Rivier College	73	73	0	0
University of New Hampshire	789	520	167	102
Rhode Island	2,315	1,606	434	275
Brown University	827	709	106	12
Providence College	0	0	0	0
Rhode Island College	77	77	0	0
University of Rhode Island	1,411	820	328	263
Vermont	729	555	114	60
Goddard College	35	35	0	0
Marlboro College	0	0	0	0
Middlebury College	2	2	0	0
University of Vermont	692	518	114	60
Middle Atlantic	85,609	56,300	17,904	11,405
New Jersey	12,301	8,136	3,193	972
Fairleigh Dickinson University	1,020	932	88	0

See explanatory information, if any, and SOURCE(S) at end of table.

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Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total all surveyed fields	Sciences total	Engineering total	Health fields
New Jersey, continued				
Kean College of New Jersey	282	282	0	0
Monmouth College	324	125	199	0
Montclair State University	480	480	0	0
New Jersey Institute of Technology	1,742	724	1,018	0
Princeton University	1,368	1,016	352	0
Rutgers the State University	4,580	3,082	854	644
Seton Hall University	619	430	0	189
Stevens Institute of Technology	1,416	734	682	0
Trenton State College	50	17	0	33
Univ of Med and Dentistry of New Jersey	254	204	0	50
William Paterson College	166	110	0	56
New York	49,824	34,266	8,698	6,860
Adelphi University	735	317	0	418
Albany Medical College	127	96	0	31
Alfred University	144	47	97	0
CUNY Bernard Baruch College	324	324	0	0
CUNY Brooklyn College	1,171	1,029	0	142
CUNY City College	1,118	624	472	22
CUNY College of Staten Island	102	102	0	0
CUNY Graduate School and Univ Center	1,735	1,505	159	71
CUNY Herbert H. Lehman College	96	96	0	0
CUNY Hunter College	773	383	0	390
CUNY John Jay College of Crim Justice	632	632	0	0
CUNY Mt. Sinai School of Medicine	170	170	0	0
CUNY Queens College	499	459	0	40
Clarkson University	287	78	209	0
College of New Rochelle	265	192	0	73
College of St Rose	129	20	0	109
Columbia Univ in the City of New York	2,970	1,774	623	573
Columbia University Teachers College	2,095	1,629	0	466
Cooper Union	90	0	90	0
Cornell University	3,787	2,824	883	80
Fordham University	633	633	0	0
Hofstra University	462	342	0	120
Iona College	581	397	0	184
Ithaca College	77	0	0	77
Long Island University	1,799	1,096	46	657
Manhattan College	371	36	335	0
Marist College	314	314	0	0
New School for Social Research	1,029	1,029	0	0
New York Institute of Technology	997	717	280	0
New York Medical College	263	199	0	64
New York University	3,450	2,989	0	461
Niagara University	0	0	0	0
Pace University	1,212	845	0	367
Polytechnic University	1,559	509	1,050	0
Rensselaer Polytechnic Institute	2,003	591	1,412	0
Rochester Institute of Technology	920	625	271	24
Rockefeller University	136	136	0	0
Russell Sage College	799	358	0	441
SUNY - Albany	1,986	1,884	0	102
SUNY - Binghamton	1,224	848	281	95
SUNY - Buffalo	3,414	1,815	1,076	523
SUNY - Coll of Env Science and Forestry	428	324	104	0
SUNY - Health Sci Ctr at Brooklyn	140	112	0	28
SUNY - Health Sci Ctr at Syracuse	115	72	0	43
SUNY - Stony Brook	2,483	1,788	343	352
SUNY College at Brockport	316	226	0	90
SUNY College at Buffalo	21	21	0	0
SUNY College at Cortland	15	15	0	0
SUNY College at Fredonia	13	13	0	0
SUNY College at Geneseo	47	14	0	33
SUNY College at New Paltz	154	154	0	0
SUNY College at Oneonta	9	9	0	0
SUNY College at Oswego	152	152	0	0
SUNY College at Plattsburgh	41	41	0	0
SUNY College at Potsdam	3	3	0	0
SUNY College of Optometry	14	0	0	14
SUNY Inst of Technology at Utica/Rome	77	77	0	0
Saint John's University	840	558	0	282
Sarah Lawrence College	60	60	0	0
St. Bonaventure University	22	22	0	0
Syracuse University	2,080	1,149	674	257
Union College	137	40	84	13
University of Rochester	1,485	1,163	209	113
Vassar College	2	2	0	0
Wagner College	108	26	0	82

See explanatory information, if any, and SOURCE(S) at end of table.

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
New York, continued				
Yeshiva University	584	561	0	23
Pennsylvania	23,484	13,898	6,013	3,573
Bloomsburg University of Pennsylvania	48	17	0	31
Bryn Mawr College	112	112	0	0
Bucknell University	71	35	36	0
California University of Pennsylvania	254	201	0	53
Carnegie Mellon University	1,664	1,019	645	0
Clarion University of Pennsylvania	100	31	0	69
Drexel University	1,400	535	865	0
Duquesne University	466	280	0	186
East Stroudsburg Univ of Pennsylvania	120	120	0	0
Edinboro University of Pennsylvania	214	120	0	94
Gannon University	271	87	26	158
Hahnemann University	604	409	0	195
Indiana University of Pennsylvania	203	203	0	0
Kutztown University of Pennsylvania	153	153	0	0
Lehigh University	1,099	520	579	0
Mansfield University of Pennsylvania	15	15	0	0
Marywood College	181	181	0	0
Millersville University of Pennsylvania	107	107	0	0
Pennsylvania State University	4,393	2,564	1,707	122
Philadelphia Col of Osteopathic Med	2	0	0	2
Philadelphia Coll of Pharmacy and Sci	73	33	0	40
Shippensburg University of Pennsylvania	358	358	0	0
Slippery Rock University of Pennsylvani	326	191	0	135
St Joseph's University	774	237	0	537
Swarthmore College	0	0	0	0
Temple University	1,753	1,136	105	512
The Medical College of Pennsylvania	112	73	0	39
Thomas Jefferson University	351	224	0	127
University of Pennsylvania	2,529	1,829	627	73
University of Pittsburgh	4,080	2,213	854	1,013
University of Scranton	165	121	0	44
Villanova University	884	475	409	0
West Chester University of Pennsylvania	417	292	0	125
Widener University	148	0	148	0
Wilkes University	37	7	12	18
East North Central	88,512	55,283	21,147	12,082
Illinois	26,337	18,197	4,688	3,452
Bradley University	222	84	138	0
Chicago School of Prof Psych	148	148	0	0
Chicago State University	483	483	0	0
De Paul University	1,522	1,435	0	87
Eastern Illinois University	215	176	0	39
Finch U of Hlth Sci/The Chicago Med Sch	158	137	0	21
Forest Institute of Professional Psych	169	169	0	0
Governors State University	658	468	0	190
Illinois Institute of Technology	2,079	1,163	916	0
Illinois State University	629	544	0	85
Loyola University of Chicago	760	645	0	115
Midwestern University	0	0	0	0
Northeastern Illinois University	474	430	0	44
Northern Illinois University	1,283	866	199	218
Northwestern University	2,050	1,130	669	251
Roosevelt University	575	575	0	0
Rush University	427	103	0	324
Sangamon State University	787	724	0	63
Southern Illinois Univ at Carbondale	1,596	1,085	241	270
Southern Illinois Univ at Edwardsville	769	453	115	201
Univ of Illinois at Urbana-Champaign	5,210	3,520	1,478	212
University of Chicago	2,189	2,165	0	24
University of Illinois at Chicago	3,535	1,375	932	1,228
Western Illinois University	399	319	0	80
Indiana	10,738	7,176	2,151	1,411
Ball State University	551	412	0	139
Butler University	44	24	0	20
Indiana State University	364	330	0	34
Indiana University	4,390	3,532	65	793
Indiana Wesleyan University	28	0	0	28
Purdue University	4,171	2,152	1,719	300
Rose-Hulman Institute of Technology	124	18	106	0
Saint Francis College	54	54	0	0

See explanatory information, if any, and SOURCE(S) at end of table

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
Indiana, continued				
University of Evansville	67	0	0	67
University of Notre Dame	868	607	261	0
Valparaiso University	77	47	0	30
Michigan	18,442	10,328	5,842	2,272
Andrews University	273	157	0	116
Central Michigan University	398	324	0	74
Eastern Michigan University	823	774	0	49
Grand Valley State University	330	100	0	230
Michigan State University	3,387	2,612	556	219
Michigan Technological University	554	211	343	0
Northern Michigan University	203	86	0	117
Oakland University	823	226	474	123
University of Detroit Mercy	755	506	199	50
University of Michigan	5,572	2,483	2,628	461
Wayne State University	3,595	1,594	1,331	670
Western Michigan University	1,729	1,255	311	163
Ohio	22,333	13,374	5,833	3,126
Air Force Institute of Technology	550	146	404	0
Antioch University	1,532	1,465	67	0
Bowling Green State University	700	659	0	41
Case Western Reserve University	1,769	758	665	346
Cleveland State University	1,239	732	428	79
John Carroll University	60	60	0	0
Kent State University	1,062	806	0	256
Medical College of Ohio at Toledo	465	52	0	413
Miami University	530	494	13	23
NE Ohio Universities College of Medicin	0	0	0	0
Ohio University	995	696	246	53
The Ohio State University	5,498	3,372	1,299	827
Union Institute	743	717	7	19
University of Akron	1,560	857	464	239
University of Cincinnati	2,693	1,145	1,030	518
University of Dayton	757	248	509	0
University of Toledo	797	382	372	43
Wright State University	1,133	602	262	269
Xavier University	60	60	0	0
Youngstown State University	190	123	67	0
Wisconsin	10,662	6,208	2,633	1,821
Marquette University	779	207	371	201
Medical College of Wisconsin	350	119	0	231
Milwaukee School of Engineering	396	0	396	0
University of Wisconsin - Eau Claire	134	31	0	103
University of Wisconsin - Green Bay	70	70	0	0
University of Wisconsin - La Crosse	94	56	0	38
University of Wisconsin - Madison	6,169	4,070	1,396	703
University of Wisconsin - Milwaukee	1,738	1,138	406	194
University of Wisconsin - Oshkosh	332	174	0	158
University of Wisconsin - Platteville	23	18	5	0
University of Wisconsin - River Falls	58	58	0	0
University of Wisconsin - Stevens Point	236	167	0	69
University of Wisconsin - Stout	212	56	59	97
University of Wisconsin - Whitewater	71	44	0	27
West North Central	32,864	21,160	6,782	4,922
Iowa	5,949	3,623	1,371	955
Drake University	239	163	0	76
Iowa State University	2,896	1,983	893	20
Loras College	28	28	0	0
Maharishi International University	52	51	0	1
Teikyo Marycrest University	40	40	0	0
Univ of Osteopathic Med & Health Sci	80	0	0	80
University of Iowa	2,479	1,266	478	735
University of Northern Iowa	135	92	0	43
Kansas	6,053	3,629	1,331	1,093
Emporia State University	157	157	0	0
Fort Hays State University	140	78	0	62
Kansas State University	1,793	1,368	364	61
Pittsburg State University	245	225	0	20
University of Kansas	2,629	1,440	587	602

See explanatory information, if any, and SOURCE(S) at end of table.

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total all surveyed fields	Sciences total	Engineering, total	Health fields
Kansas, continued				
Washburn University of Topeka	29	29	0	0
Wichita State University	1,060	332	380	348
Minnesota	8,118	5,705	1,350	1,063
Bemidji State University	30	30	0	0
Mankato State University	352	340	0	12
Mayo Graduate School of Medicine	150	120	0	30
Moorhead State University	134	108	0	26
Saint Mary's College of Minnesota	1,326	1,090	0	236
St. Cloud State University	78	41	0	37
University of Minnesota	6,048	3,976	1,350	722
Missouri	7,310	4,431	1,772	1,107
Central Missouri State University	357	269	30	58
Kirksville College of Osteopathic Med	0	0	0	0
Lincoln University	20	20	0	0
Northeast Missouri State University	29	18	0	11
Northwest Missouri State University	47	47	0	0
Southeast Missouri State University	43	43	0	0
Southwest Missouri State University	156	93	0	63
St. Louis University	910	435	18	457
The University of Health Sciences	0	0	0	0
University of Missouri - Columbia	2,011	1,332	510	169
University of Missouri - Kansas City	772	547	0	225
University of Missouri - Rolla	1,144	321	823	0
University of Missouri - St Louis	336	336	0	0
Washington University	1,485	970	391	124
Nebraska	3,203	2,374	480	349
Creighton University	136	93	0	43
University of Nebraska - Lincoln	1,991	1,474	480	37
University of Nebraska - Omaha	667	667	0	0
University of Nebraska Medical Center	326	76	0	250
University of Nebraska at Kearney	83	64	0	19
North Dakota	981	771	158	52
North Dakota State University	603	480	110	13
University of North Dakota	378	291	48	39
South Dakota	1,250	627	320	303
South Dakota School of Mines and Tech	219	68	151	0
South Dakota State University	694	352	169	173
University of South Dakota	337	207	0	130
South Atlantic	80,303	50,507	18,821	10,975
Delaware	1,721	1,145	386	190
Delaware State University	36	36	0	0
University of Delaware	1,685	1,109	386	190
District of Columbia	9,498	6,894	1,910	694
Catholic University of America	895	460	279	156
Gallaudet University	27	0	0	27
George Washington University	4,625	2,809	1,528	288
Georgetown University	788	698	0	90
Howard University	779	574	103	102
The American University	2,305	2,305	0	0
University of the District of Columbia	79	48	0	31
Florida	17,235	10,174	4,308	2,753
Florida A & M University	219	122	55	42
Florida Atlantic University	1,084	638	368	78
Florida Institute of Technology	1,037	763	274	0
Florida International University	1,073	638	218	217
Florida State University	1,513	1,228	149	136
Nova University	1,729	1,503	0	226
University of Central Florida	1,650	756	701	193
University of Florida	4,092	2,201	1,382	509
University of Miami	1,485	881	315	289
University of South Florida	2,907	998	846	1,063
University of West Florida	446	446	0	0

See explanatory information, if any, and SOURCE(S) at end of table

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
Georgia	9,863	5,815	2,912	1,136
Augusta College	50	50	0	0
Clark Atlanta University	386	386	0	0
Emory University	1,199	649	0	550
Fort Valley State College	93	93	0	0
Georgia College	263	218	0	45
Georgia Institute of Technology	3,649	945	2,704	0
Georgia Southern University	146	146	0	0
Georgia State University	1,261	999	0	262
Institute of Paper Science & Technology	77	0	77	0
Medical College of Georgia	171	88	0	83
Mercer University	152	39	108	5
Morehouse School of Medicine	9	9	0	0
University of Georgia	1,887	1,784	23	80
Valdosta State University	384	273	0	111
West Georgia College	136	136	0	0
Maryland	11,117	7,050	2,106	1,961
Coppin State College	43	43	0	0
Frostburg State University	74	74	0	0
Hood College	437	437	0	0
Johns Hopkins University	2,199	1,145	244	810
Loyola College	919	596	265	58
Morgan State University	81	81	0	0
Towson State University	591	362	0	229
Uniformed Serv Univ of the Hlth Science	106	66	0	40
Univ of Maryland - Baltimore County	1,073	814	238	21
University of Baltimore	384	384	0	0
University of Maryland - College Park	4,037	2,613	1,359	65
University of Maryland Eastern Shore	90	90	0	0
University of Maryland at Baltimore	1,058	320	0	738
Washington College	25	25	0	0
North Carolina	10,936	7,303	1,987	1,646
Appalachian State University	249	214	0	35
Duke University	1,432	1,103	260	69
East Carolina University	515	375	0	140
North Carolina A & T State University	318	105	213	0
North Carolina Central University	110	0	0	0
North Carolina State Univ at Raleigh	3,112	1,765	1,269	78
Univ of North Carolina at Chapel Hill	3,225	2,312	63	850
Univ of North Carolina at Charlotte	845	523	182	140
Univ of North Carolina at Greensboro	668	355	0	313
University of North Carolina/Wilmington	81	81	0	0
Wake Forest University	266	245	0	21
Western Carolina University	115	115	0	0
South Carolina	4,400	2,680	1,197	523
Clemson University	1,902	1,080	750	72
Furman University	7	7	0	0
Medical University of South Carolina	208	192	0	16
University of Charleston, South Carolin	102	102	0	0
University of South Carolina	2,095	1,213	447	435
Winthrop College	86	86	0	0
Virginia	12,791	7,929	3,403	1,459
College of William and Mary	432	392	40	0
Eastern Virginia Medical School	138	138	0	0
George Mason University	2,796	2,122	444	230
Hampton University	163	90	0	73
Hollins College	5	5	0	0
Institute of Textile Technology	34	0	34	0
James Madison University	182	120	0	62
Old Dominion University	1,457	821	423	213
Radford University	219	138	0	81
University of Richmond	24	24	0	0
University of Virginia	1,984	1,204	719	61
Virginia Commonwealth University	1,844	1,148	9	687
Virginia Polytechnic Inst and State Uni	3,433	1,647	1,734	52
Virginia State University	80	80	0	0
West Virginia	2,742	1,517	612	613
Marshall University	305	204	0	101
University of Charleston	0	0	0	0
West Virginia Graduate College	507	383	78	46

See explanatory information, if any, and SOURCE(S) at end of table.

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
West Virginia, continued				
West Virginia Institute of Technology	21	0	21	0
West Virginia School of Osteopathic Med	0	0	0	0
West Virginia University	1,909	930	513	466
East South Central	21,818	13,634	5,018	3,166
Alabama	6,995	3,935	1,885	1,175
Alabama A & M University	312	312	0	0
Alabama State University	21	21	0	0
Auburn University	2,029	1,294	593	142
Jacksonville State University	182	182	0	0
The University of Alabama	1,008	669	305	34
The University of Alabama at Birmingham	1,499	621	206	672
The University of Alabama in Huntsville	1,076	341	671	64
Troy State University in Montgomery	164	164	0	0
Tuskegee University	147	70	53	24
University of Montevallo	39	0	0	39
University of South Alabama	518	261	57	200
Kentucky	4,227	2,778	862	587
Eastern Kentucky University	163	163	0	0
Morehead State University	95	95	0	0
Murray State University	350	196	0	154
Spalding University	130	91	0	39
University of Kentucky	2,035	1,341	390	304
University of Louisville	1,180	650	472	58
Western Kentucky University	274	242	0	32
Mississippi	3,076	2,147	510	419
Jackson State University	304	304	0	0
Mississippi State University	1,252	839	393	20
Mississippi University for Women	49	0	0	49
University of Mississippi	851	542	117	192
University of Southern Mississippi	620	462	0	158
Tennessee	7,520	4,774	1,761	985
Austin Peay State University	45	45	0	0
East Tennessee State University	514	381	0	133
Fisk University	41	41	0	0
Meharry Medical College	69	69	0	0
Memphis State University	948	667	170	111
Middle Tennessee State University	596	596	0	0
Tennessee State University	216	200	16	0
Tennessee Technological University	314	135	179	0
University of Tennessee at Chattanooga	367	220	112	35
University of Tennessee at Knoxville	2,968	1,531	997	440
University of Tennessee, Memphis	350	150	0	200
Vanderbilt University	1,092	739	287	66
West South Central	49,043	29,436	12,295	7,312
Arkansas	2,647	1,437	581	629
Arkansas State University	389	257	0	132
University of Arkansas	1,202	621	581	0
University of Arkansas - Med Sci Campus	332	104	0	228
University of Arkansas at Little Rock	304	261	0	43
University of Central Arkansas	420	194	0	226
Louisiana	6,503	3,973	1,425	1,105
Grambling State University	12	12	0	0
Louisiana State University System	3,156	2,204	813	139
Louisiana Tech University	440	85	301	54
Loyola University in New Orleans	0	0	0	0
McNeese State University	132	115	17	0
Nicholls State University	56	56	0	0
Northeast Louisiana University	202	149	0	53
Northwest State University	174	19	0	155
Southeastern Louisiana University	52	52	0	0
Southern University A & M College	225	225	0	0
Tulane University	1,420	682	185	553
University of Southwestern Louisiana	529	374	109	46
Xavier University	105	0	0	105
Oklahoma	5,241	2,838	1,463	940
East Central University	8	8	0	0

See explanatory information, if any, and SOURCE(S) at end of table.

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
Oklahoma, continued				
Northeastern State University	286	147	61	78
Oklahoma State University	1,809	1,106	667	36
Southwestern Oklahoma State University	20	20	0	0
University of Oklahoma	2,779	1,359	594	826
University of Tulsa	339	198	141	0
Texas	34,652	21,188	8,826	4,638
Abilene Christian University	100	96	0	4
Angelo State University	158	151	0	7
Baylor College of Dentistry	61	9	0	52
Baylor College of Medicine	336	279	0	57
Baylor University	432	352	0	80
East Texas State University	303	303	0	0
Incarnate Word College	141	58	0	83
Lamar University-Beaumont	481	148	249	84
Midwestern State University	173	173	0	0
Prairie View A & M University	180	142	38	0
Rice University	844	581	263	0
Sam Houston State University	365	365	0	0
Southern Methodist University	997	462	535	0
Southwest Texas State University	773	656	0	117
St. Mary's University	275	195	80	0
Stephen F. Austin State University	250	230	0	20
Sul Ross State University	80	80	0	0
Tarleton State University	72	72	0	0
Texas A & M University	5,082	3,293	1,773	16
Texas A & M University - Corpus Christi	402	299	0	103
Texas A & M University-Kingsville	462	247	215	0
Texas Christian University	169	149	0	20
Texas Southern University	242	242	0	0
Texas Tech University	1,568	1,074	413	81
Texas Woman's University	1,566	498	0	1,068
The University of Texas - Pan American	22	22	0	0
Trinity University	145	34	0	111
U of North TX Hlth Sci Ctr at Ft Worth	75	0	0	75
Univ of Texas Hlth Sci Ctr San Antonio	473	163	0	310
Univ of Texas Hlth Sci Ctr at Houston	1,090	499	0	591
Univ of Texas M.D. Anderson Cancer Ctr	0	0	0	0
Univ of Texas Med Branch at Galveston	417	145	0	272
Univ of Texas SW Medical Ctr at Dallas	442	333	28	81
Univ of Texas at Arlington	2,198	983	962	253
University of Central Texas	192	192	0	0
University of Houston	2,977	1,608	1,244	125
University of Houston at Clear Lake Cit	1,333	1,113	220	0
University of North Texas	1,536	1,392	23	121
University of Texas at Austin	5,123	2,652	2,070	401
University of Texas at Dallas	1,235	802	215	218
University of Texas at El Paso	852	343	324	185
University of Texas at San Antonio	493	349	144	0
University of Texas at Tyler	186	150	0	36
University of Texas of the Permian Basi	66	66	0	0
West Texas A&M University	285	188	30	67
Mountain	32,349	20,865	8,251	3,233
Arizona	8,176	5,251	2,225	700
Arizona State University	3,635	1,920	1,424	291
Northern Arizona University	1,022	884	0	138
University of Arizona	3,519	2,447	801	271
Colorado	9,996	6,198	2,595	1,203
Colorado School of Mines	869	606	263	0
Colorado State University	2,148	1,493	480	175
National Technological University	669	154	515	0
University of Colorado	4,987	2,897	1,323	767
University of Denver	880	817	14	49
University of Northern Colorado	443	231	0	212
Idaho	1,701	1,061	418	222
Idaho State University	586	294	70	222
University of Idaho	1,115	767	348	0
Montana	1,387	1,095	229	63
Montana College Mineral Sci & Technolog	111	7	85	19

See explanatory information, if any, and SOURCE(S) at end of table.

Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
Montana, continued				
Montana State University	666	482	144	40
University of Montana	610	606	0	4
Nevada	1,504	1,043	363	98
University of Nevada at Las Vegas	532	359	136	37
University of Nevada at Reno	972	684	227	61
New Mexico	3,854	2,571	1,029	254
Eastern New Mexico University	140	109	0	31
New Mexico Highlands University	79	79	0	0
New Mexico Institute of Mining and Tech	255	182	73	0
New Mexico State University	1,340	870	425	45
University of New Mexico	2,040	1,331	531	178
Utah	4,733	2,966	1,195	572
Brigham Young University	1,136	827	242	67
University of Utah	2,173	1,146	583	444
Utah State University	1,424	993	370	61
Wyoming	998	680	197	121
University of Wyoming	998	680	197	121
Pacific	76,663	49,638	17,623	9,402
Alaska	852	572	257	23
University of Alaska Anchorage	208	48	137	23
University of Alaska Southeast	41	41	0	0
University of Alaska at Fairbanks	603	483	120	0
California	62,157	39,691	14,743	7,723
Azusa Pacific University	332	234	0	98
Biola University	155	155	0	0
Calif Poly State Univ - San Luis Obispo	438	263	175	0
Calif Sch of Prof Psych - Fresno	393	393	0	0
Calif Sch of Prof Psych - Los Angeles	538	538	0	0
Calif Sch of Prof Psych - San Diego	643	643	0	0
Calif School of Prof Psych-Alameda	508	508	0	0
Calif State Polytechnic Univ at Pomona	424	278	146	0
Calif State Univ at Dominguez Hills	1,006	446	26	534
Calif State Univ at Fullerton	1,059	749	223	87
Calif State Univ at Hayward	823	742	0	81
Calif State Univ at Long Beach	1,964	1,101	581	282
Calif State Univ at Los Angeles	1,017	570	161	286
Calif State Univ at San Bernardino	266	225	0	41
Calif State University at Chico	434	368	14	52
Calif State University at Fresno	979	696	21	262
Calif State University at Northridge	1,337	685	457	195
Calif State University at Sacramento	1,140	678	304	158
Calif State University, Stanislaus	204	204	0	0
California Institute of Integral Studie	454	454	0	0
California Institute of Technology	1,131	699	432	0
California State Univ - Bakersfield	160	118	0	42
Chapman University	561	460	0	101
Charles R. Drew Univ of Medicine & Sci	0	0	0	0
Claremont Graduate School	613	613	0	0
Dominican College of San Rafael	115	115	0	0
Fuller Theological Seminary	373	373	0	0
Golden Gate University	157	157	0	0
Harvey Mudd College	12	0	12	0
Humboldt State University	354	291	63	0
John F Kennedy University	916	898	0	18
Loma Linda University	640	138	0	502
Loyola Marymount University	259	170	89	0
National University	712	543	169	0
Occidental College	4	4	0	0
Pacific Graduate School of Psychology	348	348	0	0
Pacific States University	9	1	8	0
Pepperdine University	1,084	1,084	0	0
RAND Graduate School of Policy Studies	61	61	0	0
San Diego State University	2,191	1,289	255	647
San Francisco State University	1,294	942	0	352
San Jose State University	2,013	1,019	774	220
Santa Clara University	1,144	629	515	0

See explanatory information, if any, and SOURCE(S) at end of table.

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Table 23. Graduate students in the science, engineering, and health fields in all institutions, by geographic division, State, institution, and area of study: 1993

Division, State, and institution	Total, all surveyed fields	Sciences, total	Engineering, total	Health fields
California, continued				
Sonoma State University	204	111	0	93
Stanford University	4,785	2,163	2,498	124
The Fielding Institute	513	513	0	0
The Wright Institute	221	221	0	0
US International University	473	473	0	0
US Naval Postgraduate School	1,290	619	671	0
University of Calif at Berkeley	4,979	2,862	1,619	498
University of Calif at Davis	2,578	1,962	592	24
University of Calif at Riverside	763	763	0	0
University of Calif at San Diego	1,885	1,399	399	87
University of Calif at San Francisco	1,093	288	27	778
University of Calif at Santa Barbara	1,420	972	422	26
University of Calif at Santa Cruz	690	628	62	0
University of California, Irvine	1,528	1,063	430	35
University of California, Los Angeles	4,361	2,683	765	913
University of La Verne	448	202	0	246
University of Redlands	64	0	0	64
University of San Diego	242	47	0	195
University of San Francisco	203	82	99	22
University of Southern California	5,815	2,664	2,596	555
University of the Pacific	153	47	1	105
West Coast University	184	47	137	0
Hawaii	2,176	1,509	238	429
University of Hawaii at Manoa	2,176	1,509	238	429
Oregon	4,460	3,277	938	245
Oregon Grad Inst of Science & Technolog	320	211	109	0
Oregon Health Sciences University	127	126	0	1
Oregon State University	2,015	1,371	533	111
Pacific University	5	0	0	5
Portland State University	1,112	742	284	86
Southern Oregon State College	40	40	0	0
University of Oregon	787	787	0	0
University of Portland	54	0	12	42
Washington	7,018	4,589	1,447	982
Central Washington University	111	111	0	0
Eastern Washington University	268	242	0	26
Gonzaga University	19	0	19	0
Pacific Lutheran University	83	65	0	18
Saint Martin's College	24	0	24	0
Seattle University	261	155	106	0
University of Washington	4,451	2,739	988	724
Walla Walla College	11	11	0	0
Washington State University	1,481	1,049	310	122
Western Washington University	291	217	0	74
Whitworth College	18	0	0	18
Outlying Areas	2,816	1,862	213	741
Guam	69	69	0	0
University of Guam	69	69	0	0
Puerto Rico	2,747	1,793	213	741
Caribbean Center for Advanced Studies	181	181	0	0
Catholic University of Puerto Rico	70	15	0	55
Ponce School of Medicine	14	14	0	0
Univ of Puerto Rico Mayaguez Campus	524	311	213	0
Univ of Puerto Rico Rio Piedras Campus	1,232	1,138	0	94
University of Puerto Rico Med Sci Campu	726	134	0	592

NOTE: Includes medical schools

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 24. Graduate science and engineering students in doctorate-granting institutions, ranked by 1993 total graduate science and engineering students: 1986-93

Institutional ranking	1986	1987	1988	1989	1990	1991	1992	1993
Total, all institutions	366,270	371,722	377,335	384,702	398,297	413,721	432,323	440,875
1 University of Wisconsin - Madison	5,169	5,234	5,335	5,506	5,675	5,912	6,117	6,169
2 University of Minnesota	5,524	5,266	5,426	5,552	5,527	5,678	5,791	6,048
3 University of Southern California	7,866	7,474	7,034	6,397	5,679	5,593	5,897	5,815
4 University of Michigan	4,655	4,863	4,863	5,003	5,195	5,188	5,514	5,572
5 The Ohio State University	5,050	5,088	5,178	5,132	5,178	5,446	5,481	5,498
6 Univ of Illinois at Urbana-Champaign	4,693	4,854	4,805	4,842	4,945	5,047	5,156	5,210
7 University of Texas at Austin	4,688	4,390	4,420	4,436	4,671	4,928	5,146	5,123
8 Texas A & M University	4,019	4,194	4,409	4,635	4,927	4,977	5,271	5,082
9 University of Colorado	3,378	3,617	3,598	3,783	4,133	4,493	4,909	4,987
10 University of Calif at Berkeley	5,297	5,337	5,099	5,057	5,202	4,979	5,012	4,979
Total, 1st 10 institutions	50,339	50,317	50,167	50,343	51,132	52,241	54,294	54,483
11 Stanford University	4,021	4,127	4,119	4,142	4,243	4,401	4,606	4,785
12 George Washington University	4,366	4,603	4,183	3,997	4,249	4,368	4,669	4,625
13 Rutgers the State University	4,163	4,036	4,018	4,093	4,294	4,375	4,515	4,580
14 University of Washington	4,060	4,070	4,196	4,128	4,290	4,454	4,367	4,451
15 Massachusetts Institute of Technology	4,065	3,962	3,951	4,165	4,207	4,243	4,270	4,427
16 Pennsylvania State University	4,097	3,981	4,188	4,295	4,238	4,347	4,351	4,393
17 Indiana University	2,513	2,630	2,659	3,307	3,781	3,966	4,204	4,390
18 University of California, Los Angeles	3,792	4,027	4,117	4,168	4,225	4,171	4,215	4,361
19 Purdue University	3,725	3,851	4,058	4,040	3,929	4,038	4,169	4,171
20 University of Florida	3,305	3,223	3,293	3,371	3,588	3,741	3,979	4,092
Total, 1st 20 institutions	88,446	88,827	88,949	90,049	92,176	94,345	97,639	98,758
21 University of Pittsburgh	3,756	3,819	3,679	3,635	3,852	3,944	4,049	4,080
22 University of Maryland - College Park	3,515	3,592	3,684	3,860	3,931	3,876	3,961	4,037
23 Cornell University	3,361	3,365	3,386	3,416	3,408	3,453	3,768	3,787
24 Georgia Institute of Technology	2,541	2,640	2,677	2,766	2,972	3,326	3,548	3,649
25 Arizona State University	2,389	2,482	2,759	2,946	2,995	3,133	3,401	3,635
26 Harvard University	3,266	2,973	3,163	3,069	3,231	3,320	3,575	3,610
27 Wayne State University	2,491	2,480	2,624	2,930	3,155	3,233	3,437	3,595
28 University of Illinois at Chicago	2,813	2,728	2,835	3,036	3,083	3,309	3,523	3,535
29 University of Arizona	3,747	3,629	3,627	3,474	3,377	3,396	3,461	3,519
30 New York University	3,200	3,152	2,856	3,142	3,161	3,315	3,449	3,450
Total, 1st 30 institutions	119,525	119,687	120,239	122,323	125,341	128,650	133,811	135,655
31 Virginia Polytechnic Inst and State Uni	3,377	3,324	2,991	3,192	3,229	3,201	3,378	3,433
32 SUNY - Buffalo	2,823	3,063	3,150	3,125	3,296	3,425	3,395	3,414
33 Boston University	2,359	2,361	2,211	2,229	2,453	2,632	2,752	3,388
34 Michigan State University	3,085	2,947	2,845	3,051	2,993	3,083	3,293	3,387
35 Univ of North Carolina at Chapel Hill	2,539	2,692	2,669	2,963	3,066	3,101	3,274	3,225
36 University of Massachusetts	2,548	2,490	3,056	3,012	3,105	3,137	3,140	3,194
37 Louisiana State University System	2,389	2,459	2,405	2,333	2,582	2,848	3,058	3,156
38 North Carolina State Univ at Raleigh	2,964	2,883	3,031	3,114	3,076	3,115	3,317	3,112
39 University of Houston	1,920	1,848	1,672	2,111	2,607	3,236	3,238	2,977
40 Columbia Univ in the City of New York	3,126	2,990	2,895	2,945	2,889	2,972	2,974	2,970
Total, 1st 40 institutions	146,655	146,744	147,164	150,398	154,637	159,400	165,630	167,911
41 University of Tennessee at Knoxville	2,464	2,368	2,535	2,735	2,665	2,784	2,918	2,968
42 University of South Florida	1,304	1,259	1,688	1,817	2,184	2,334	2,732	2,907
43 Iowa State University	2,574	2,618	2,674	2,640	2,711	2,775	2,834	2,896
44 George Mason University	1,221	1,566	1,892	2,046	2,273	2,298	2,435	2,796
45 University of Oklahoma	2,154	2,354	2,213	2,260	2,402	2,531	2,745	2,779
46 University of Connecticut	2,163	2,269	2,282	2,290	2,510	2,550	2,658	2,706
47 University of Cincinnati	2,389	2,368	2,421	2,422	2,582	2,701	2,740	2,693
48 University of Kansas	2,049	2,041	2,091	2,191	2,257	2,403	2,621	2,629
49 University of Calif at Dayis	2,744	2,608	2,587	2,668	2,717	2,579	2,609	2,578
50 University of Pennsylvania	2,510	2,435	2,415	2,521	2,526	2,542	2,545	2,529
Total, 1st 50 institutions	168,227	168,630	169,962	173,988	179,464	184,897	192,467	195,392
51 SUNY - Stony Brook	2,109	2,193	2,321	2,288	2,303	2,406	2,461	2,483
52 University of Iowa	2,084	2,068	2,171	2,140	2,301	2,420	2,423	2,479
53 The American University	1,600	1,645	1,371	1,476	1,559	1,656	2,042	2,305
54 Northeastern University	2,598	2,435	2,359	2,241	2,355	2,477	2,248	2,305
55 Johns Hopkins University	1,528	1,484	1,647	1,694	1,756	1,880	2,069	2,199
56 Univ of Texas at Arlington	1,858	1,874	1,882	1,910	1,961	2,087	2,176	2,198
57 San Diego State University	1,893	1,830	1,796	1,941	1,869	1,938	2,074	2,191
58 University of Chicago	1,625	1,741	1,757	1,969	2,016	1,880	2,212	2,189
59 University of Hawaii at Manoa	1,820	1,822	1,829	1,857	1,981	2,088	2,061	2,176
60 University of Utah	1,900	1,879	1,754	1,808	1,876	2,025	2,136	2,173
Total, 1st 60 institutions	187,242	187,601	188,849	193,312	199,441	205,754	214,369	218,090

See explanatory information, if any, and SOURCE(S) at end of table.

Table 24. Graduate science and engineering students in doctorate-granting institutions, ranked by 1993 total graduate science and engineering students: 1986-93

Institutional ranking	1986	1987	1988	1989	1990	1991	1992	1993
61 Colorado State University	1,756	1,804	1,870	1,864	1,870	2,010	2,048	2,148
62 University of South Carolina	1,801	1,895	1,683	1,827	1,874	1,892	1,989	2,095
63 Columbia University Teachers College	1,758	1,751	1,987	1,884	1,928	2,030	2,020	2,095
64 Syracuse University	2,188	2,138	2,195	2,135	2,154	2,164	2,331	2,080
65 Illinois Institute of Technology	1,583	1,632	1,654	1,510	1,776	1,818	1,916	2,079
66 Northwestern University	1,720	1,835	1,905	1,971	1,920	1,998	2,069	2,050
67 University of New Mexico	1,556	1,665	1,623	1,692	1,791	1,810	1,874	2,040
68 University of Kentucky	1,545	1,581	1,617	1,762	1,838	1,917	2,034	2,035
69 Auburn University	1,303	1,307	1,393	1,517	1,699	1,844	1,894	2,029
70 Oregon State University	1,797	1,779	1,740	1,722	1,795	1,861	1,850	2,015
Total, 1st 70 institutions	204,249	204,988	206,516	211,196	218,086	225,098	234,394	238,756
71 University of Missouri - Columbia	1,951	1,888	1,849	1,833	1,931	1,983	2,010	2,011
72 Rensselaer Polytechnic Institute	1,841	1,778	1,668	1,795	1,852	2,036	2,040	2,003
73 University of Nebraska - Lincoln	1,351	1,333	1,415	1,457	1,558	1,757	1,918	1,991
74 SUNY - Albany	1,153	1,168	1,077	1,088	1,264	1,384	1,876	1,986
75 University of Virginia	1,848	1,872	1,845	1,693	1,899	1,934	1,974	1,984
76 Calif State Univ at Long Beach	1,821	2,173	1,629	2,021	2,127	2,231	2,173	1,964
77 University of Massachusetts Lowell	1,932	2,151	2,088	1,582	2,059	2,049	2,053	1,920
78 West Virginia University	1,339	1,242	1,352	1,396	1,522	1,643	1,728	1,909
79 Clemson University	1,311	1,333	1,396	1,451	1,500	1,795	1,992	1,902
80 University of Georgia	1,465	1,576	1,525	1,501	1,553	1,666	1,782	1,887
Total, 1st 80 institutions	220,261	221,502	222,360	227,013	235,351	243,576	253,940	258,313
81 University of Calif at San Diego	1,528	1,616	1,528	1,625	1,790	1,902	1,884	1,885
82 Virginia Commonwealth University	1,165	1,298	1,433	1,490	1,775	1,850	1,847	1,844
83 Yale University	1,841	1,926	1,929	1,930	1,918	1,861	1,827	1,823
84 Oklahoma State University	1,529	1,577	1,542	1,690	1,721	1,813	1,854	1,809
85 Long Island University	1,320	1,203	1,228	1,022	1,163	1,306	1,626	1,799
86 Kansas State University	1,409	1,450	1,505	1,533	1,532	1,579	1,654	1,793
87 Case Western Reserve University	1,947	2,233	1,971	1,692	1,793	1,687	1,789	1,769
88 Temple University	1,158	1,203	1,237	1,355	1,375	1,592	1,661	1,753
89 New Jersey Institute of Technology	2,102	2,419	2,658	2,647	2,283	1,848	1,820	1,742
90 University of Wisconsin - Milwaukee	1,630	1,661	1,698	1,709	1,747	1,827	1,775	1,738
Total, 1st 90 institutions	235,890	238,088	239,089	243,706	252,448	260,841	271,677	276,268
91 CUNY Graduate School and Univ Center	1,853	2,026	2,047	2,055	2,068	1,841	1,862	1,735
92 Western Michigan University	1,345	1,540	1,392	1,342	1,479	1,691	1,690	1,729
93 Nova University	436	1,260	1,202	1,143	1,108	1,260	1,429	1,729
94 University of Delaware	1,189	1,303	1,198	1,239	1,357	1,461	1,560	1,685
95 Carnegie Mellon University	1,535	1,512	1,563	1,609	1,657	1,656	1,671	1,664
96 University of Central Florida	1,113	1,151	1,052	1,047	1,198	1,403	1,528	1,650
97 Southern Illinois Univ at Carbondale	1,512	1,666	1,638	1,625	1,600	1,618	1,543	1,596
98 Texas Tech University	1,071	1,077	1,044	1,167	1,293	1,464	1,639	1,568
99 Texas Woman's University	1,976	1,864	1,883	2,044	1,810	1,609	1,599	1,566
100 University of Akron	1,398	1,448	1,505	1,526	1,595	1,609	1,568	1,560
Total, 1st 100 institutions	249,318	252,935	253,613	258,503	267,613	276,453	287,766	292,750
101 Polytechnic University	2,324	2,066	2,028	2,050	1,903	1,628	1,650	1,559
102 University of North Texas	1,202	1,151	1,207	1,205	1,207	1,152	1,441	1,536
103 Antioch University	0	0	1,133	1,019	1,146	1,531	1,617	1,532
104 University of California, Irvine	1,021	1,109	1,161	1,212	1,277	1,344	1,477	1,528
105 De Paul University	1,154	1,269	1,245	1,373	1,418	1,465	1,468	1,522
106 Florida State University	1,190	1,110	1,219	1,425	1,483	1,503	1,499	1,513
107 The University of Alabama at Birmingham	1,053	1,176	1,303	1,351	1,403	1,350	1,449	1,499
108 University of Miami	1,080	1,174	1,193	1,159	1,213	1,284	1,315	1,485
109 Washington University	1,132	1,249	1,295	1,368	1,509	1,425	1,493	1,485
110 University of Rochester	1,253	1,265	1,317	1,361	1,396	1,421	1,454	1,485
Total, 1st 110 institutions	260,727	264,504	266,714	272,026	281,568	290,556	302,629	307,894
111 Washington State University	1,398	1,362	1,276	1,191	1,271	1,365	1,414	1,481
112 Old Dominion University	950	986	1,091	1,104	1,197	1,267	1,238	1,457
113 Duke University	1,166	1,216	1,283	1,299	1,388	1,407	1,406	1,432
114 Utah State University	1,207	1,163	1,213	1,247	1,234	1,248	1,343	1,424
115 University of Calif at Santa Barbara	1,368	1,401	1,328	1,440	1,525	1,530	1,558	1,420
116 Tulane University	905	893	931	947	1,009	1,232	1,337	1,420
117 Stevens Institute of Technology	1,622	1,642	1,666	1,435	1,333	1,313	1,335	1,416
118 University of Rhode Island	1,196	1,286	1,217	1,278	1,310	1,278	1,400	1,411
119 Drexel University	1,362	1,391	1,318	1,276	1,410	1,534	1,431	1,400
120 Princeton University	1,177	1,182	1,248	1,327	1,334	1,374	1,379	1,368
Total, 1st 120 institutions	273,078	277,026	279,285	284,570	294,579	304,104	316,470	322,123

See explanatory information, if any, and SOURCE(S) at end of table.

Table 24. Graduate science and engineering students in doctorate-granting institutions, ranked by 1993 total graduate science and engineering students: 1986-93

Institutional ranking	1986	1987	1988	1989	1990	1991	1992	1993
121 New Mexico State University	843	900	903	856	883	956	1,320	1,340
122 US Naval Postgraduate School	1,260	1,204	1,331	1,349	1,388	1,340	1,314	1,290
123 Northern Illinois University	883	905	973	977	1,167	1,231	1,254	1,283
124 Georgia State University	926	928	984	1,068	1,111	1,149	1,263	1,261
125 Mississippi State University	927	1,044	1,075	1,090	1,087	1,165	1,166	1,252
126 Cleveland State University	837	1,008	1,104	1,060	1,125	1,216	1,218	1,239
127 University of Texas at Dallas	963	975	1,088	1,169	1,192	1,149	1,201	1,235
128 Univ of Puerto Rico Rio Piedras Campus	1,265	1,135	1,041	1,097	1,235	1,132	1,226	1,232
129 SUNY - Binghamton	1,131	1,106	1,161	1,199	1,182	1,214	1,231	1,224
130 Pace University	1,375	1,181	1,121	1,155	1,094	1,081	1,075	1,212
Total, 1st 130 institutions	283,488	287,412	290,066	295,590	306,043	315,737	328,738	334,691
131 University of Arkansas	943	958	858	857	911	943	1,027	1,202
132 Emory University	743	752	769	852	1,013	986	1,100	1,199
133 University of Louisville	977	1,038	1,126	1,141	1,115	1,156	1,203	1,180
134 Tufts University	744	854	982	1,002	996	1,044	1,150	1,158
135 University of Missouri - Rolla	1,246	1,282	1,239	1,231	1,224	1,261	1,216	1,144
136 Santa Clara University	1,665	1,619	1,642	1,494	1,293	1,222	1,226	1,144
137 Brigham Young University	1,005	971	793	659	617	976	1,070	1,136
138 Wright State University	759	861	921	961	993	1,144	1,190	1,133
139 California Institute of Technology	992	965	1,010	1,065	1,088	1,125	1,152	1,131
140 University of Idaho	778	837	887	960	1,048	1,068	1,063	1,115
Total, 1st 140 institutions	293,340	297,549	300,293	305,812	316,341	326,662	340,135	346,233
141 Portland State University	676	692	778	815	918	1,051	1,111	1,112
142 Lehigh University	1,017	944	974	1,018	764	1,022	1,114	1,099
143 University of Calif at San Francisco	949	994	1,033	1,036	1,038	1,035	1,064	1,093
144 Vanderbilt University	739	795	839	1,001	996	1,016	1,026	1,092
145 Univ of Texas Hlth Sci Ctr at Houston	690	703	749	832	919	962	1,066	1,090
146 Florida Atlantic University	475	499	512	490	742	860	1,003	1,084
147 Pepperdine University	511	601	664	693	731	935	1,040	1,084
148 The University of Alabama in Huntsville	627	742	826	940	970	1,051	995	1,076
149 Florida International University	0	0	580	703	771	893	963	1,073
150 Univ of Maryland - Baltimore County	563	507	831	835	913	1,026	1,057	1,073
Total, 1st 150 institutions	299,587	304,026	308,079	314,175	325,103	336,513	350,574	357,109
151 Kent State University	899	901	911	961	1,029	1,059	1,071	1,062
152 Wichita State University	772	896	905	881	972	945	1,087	1,060
153 University of Maryland at Baltimore	819	812	827	921	965	1,069	1,063	1,058
154 Florida Institute of Technology	1,051	1,103	999	1,024	894	1,028	1,074	1,037
155 New School for Social Research	1,135	1,103	1,080	1,066	984	908	1,164	1,029
156 Northern Arizona University	612	689	729	804	953	939	900	1,022
157 Fairleigh Dickinson University	794	1,027	993	859	912	1,005	1,070	1,020
158 The University of Alabama	734	775	714	768	809	901	966	1,008
159 University of Wyoming	760	759	717	802	851	928	956	998
160 Southern Methodist University	770	895	974	952	901	815	950	997
Total, 1st 160 institutions	307,933	312,986	316,928	323,213	334,373	346,110	360,875	367,400
161 New York Institute of Technology	928	884	948	961	939	887	1,025	997
162 Ohio University	930	998	1,000	986	1,004	1,014	1,026	995
163 University of Nevada at Reno	514	616	650	744	841	889	996	972
164 Memphis State University	979	820	846	888	879	919	954	948
165 Rochester Institute of Technology	698	692	696	756	866	963	1,027	920
166 St. Louis University	779	744	777	804	800	870	929	910
167 Catholic University of America	1,037	1,032	980	916	940	883	892	895
168 Villanova University	1,061	979	958	902	844	959	938	884
169 University of Denver	663	652	691	644	981	991	855	880
170 Colorado School of Mines	803	774	700	679	679	781	889	869
Total, 1st 170 institutions	316,325	321,177	325,174	331,493	343,146	355,266	370,406	376,670
171 University of Notre Dame	658	672	745	752	799	804	872	868
172 University of Texas at El Paso	676	703	738	701	766	799	927	852
173 University of Mississippi	640	601	709	750	739	805	799	851
174 Rice University	795	840	750	789	800	825	852	844
175 Saint John's University	677	620	620	628	692	705	828	840
176 Brown University	797	788	801	785	769	781	859	827
177 Oakland University	602	622	652	701	668	750	751	823
178 University of Maine	538	614	649	667	660	706	811	806
179 University of Toledo	729	726	583	666	700	751	784	797
180 University of New Hampshire	570	584	634	634	674	697	744	789
Total, 1st 180 institutions	323,007	327,947	332,055	338,566	350,413	362,889	378,633	384,967

See explanatory information, if any, and SOURCE(S) at end of table.

Table 24. Graduate science and engineering students in doctorate-granting institutions, ranked by 1993 total graduate science and engineering students: 1986-93

Institutional ranking	1986	1987	1988	1989	1990	1991	1992	1993
181 Georgetown University	1,259	1,022	884	886	714	750	808	788
182 University of Oregon	740	754	794	776	776	822	845	787
183 Worcester Polytechnic Institute	773	694	711	680	725	865	783	781
184 Howard University	842	896	868	751	781	726	738	779
185 Marquette University	764	828	819	814	815	808	772	779
186 University of Missouri - Kansas City	645	728	745	768	812	790	807	772
187 University of Calif at Riverside	727	735	701	672	711	733	757	763
188 Loyola University of Chicago	561	580	587	608	723	754	753	760
189 University of Dayton	806	947	808	706	804	788	739	757
190 University of Detroit Mercy	540	579	526	588	564	668	705	755
Total, 1st 190 institutions	330,664	335,710	339,498	345,815	357,838	370,593	386,340	392,688
191 Union Institute	470	476	471	488	501	556	416	743
192 Adelphi University	971	902	871	943	948	752	883	735
193 University of Puerto Rico Med Sci Campu	411	460	458	511	484	566	639	726
194 Bowling Green State University	509	519	564	578	560	574	628	700
195 South Dakota State University	424	424	422	434	486	621	615	694
196 University of Vermont	630	605	650	618	625	648	714	692
197 University of Calif at Santa Cruz	455	462	455	555	608	628	671	690
198 Univ of North Carolina at Greensboro	500	494	451	447	530	585	655	668
199 Montana State University	454	461	519	511	481	519	598	666
200 Boston College	523	521	538	614	623	678	680	643
Total, 1st 200 institutions	336,011	341,034	344,897	351,514	363,684	376,720	392,839	399,645
201 Calif Sch of Prof Psych - San Diego	415	430	434	480	519	617	592	643
202 Loma Linda University	537	453	489	464	459	468	547	640
203 Fordham University	480	543	461	470	566	598	584	633
204 Illinois State University	449	541	557	567	523	570	633	629
205 University of Southern Mississippi	683	610	605	661	603	584	603	620
206 Seton Hall University	300	297	313	278	278	540	571	619
207 Claremont Graduate School	448	480	517	502	511	552	573	613
208 University of Montana	435	430	421	456	497	525	593	610
209 Hahnemann University	391	394	494	406	506	572	594	604
210 North Dakota State University	614	574	620	615	560	615	630	603
Total, 1st 210 institutions	340,763	345,786	349,808	356,413	368,706	382,361	398,759	405,859
211 University of Alaska at Fairbanks	399	387	404	444	487	480	571	603
212 Middle Tennessee State University	0	0	322	338	508	529	580	596
213 Idaho State University	257	336	338	445	476	444	505	586
214 Yeshiva University	561	586	600	666	590	632	634	584
215 Michigan Technological University	383	398	417	442	464	483	510	554
216 Ball State University	477	573	328	333	421	429	521	551
217 Air Force Institute of Technology	524	580	596	548	653	589	588	550
218 Calif Sch of Prof Psych - Los Angeles	428	438	452	501	585	534	495	538
219 University of Nevada at Las Vegas	0	0	218	277	293	390	469	532
220 Miami University	505	546	477	454	468	485	481	530
Total, 1st 220 institutions	344,297	349,630	353,960	360,861	373,651	387,356	404,113	411,483
221 University of Southwestern Louisiana	633	560	490	534	538	607	629	529
222 Univ of Puerto Rico Mayaguez Campus	427	397	374	364	358	439	495	524
223 University of South Alabama	305	345	392	453	494	515	523	518
224 East Carolina University	373	354	364	382	363	402	509	515
225 East Tennessee State University	241	262	356	318	343	390	410	514
226 The Fielding Institute	447	471	434	470	473	478	475	513
227 Calif School of Prof Psych-Alameda	426	423	455	501	512	519	528	508
228 Lamar University-Beaumont	330	282	303	320	339	458	516	481
229 Brandeis University	342	366	375	392	416	428	432	479
230 Univ of Texas Hlth Sci Ctr San Antonio	292	302	309	380	400	457	473	473
Total, 1st 230 institutions	348,113	353,392	357,812	364,975	377,887	392,049	409,103	416,537
231 US International University	630	613	547	497	519	492	468	473
232 Duquesne University	306	315	299	314	380	401	445	466
233 Medical College of Ohio at Toledo	162	214	222	255	292	290	387	465
234 Hofstra University	507	553	580	599	549	508	462	462
235 California Institute of Integral Studie	208	240	247	300	250	362	362	454
236 University of La Verne	0	0	168	181	141	320	385	448
237 University of Northern Colorado	456	552	419	262	339	367	448	443
238 Univ of Texas SW Medical Ctr at Dallas	281	257	298	316	320	355	429	442
239 Louisiana Tech University	279	242	227	263	230	301	402	440
240 College of William and Mary	314	303	310	302	334	371	431	432
Total, 1st 240 institutions	351,256	356,681	361,129	368,264	381,241	395,816	413,322	421,062

See explanatory information, if any, and SOURCE(S) at end of table.

Table 24. Graduate science and engineering students in doctorate-granting institutions, ranked by 1993 total graduate science and engineering students: 1986-93

Institutional ranking	1986	1987	1988	1989	1990	1991	1992	1993
241 Baylor University	289	289	291	297	339	348	411	432
242 SUNY - Coll of Env Science and Forestry	381	355	377	420	455	427	457	428
243 Rush University	353	364	408	459	444	442	421	427
244 Univ of Texas Med Branch at Galveston	235	248	213	231	226	355	387	417
245 Central Michigan University	399	363	316	312	298	335	390	398
246 Calif Sch of Prof Psych - Fresno	194	202	207	235	251	366	385	393
247 Clark Atlanta University	0	0	0	312	279	323	387	386
248 Dartmouth College	299	298	339	352	339	362	381	385
249 University of Hartford	126	182	195	181	267	311	303	378
250 University of North Dakota	356	341	327	332	326	316	355	378
Total, 1st 250 institutions	353,888	359,323	363,802	371,395	384,465	399,401	417,199	425,084
251 Fuller Theological Seminary	186	245	280	295	338	343	352	373
252 Sam Houston State University	376	391	373	328	343	362	355	365
253 Indiana State University	282	286	270	329	270	337	333	364
254 Thomas Jefferson University	74	115	118	137	158	269	328	351
255 Medical College of Wisconsin	68	61	60	84	91	107	120	350
256 University of Tennessee, Memphis	160	182	194	207	215	213	308	350
257 Pacific Graduate School of Psychology	213	246	0	347	368	341	373	348
258 University of Tulsa	290	325	300	257	260	280	321	339
259 University of South Dakota	185	193	186	200	260	236	323	337
260 University of Missouri - St Louis	323	288	309	313	316	281	323	336
Total, 1st 260 institutions	356,045	361,655	365,892	373,892	387,084	402,170	420,335	428,597
261 Baylor College of Medicine	182	197	224	266	293	303	327	336
262 University of Arkansas - Med Sci Campus	218	222	195	172	197	226	263	332
263 University of Nebraska Medical Center	186	207	225	263	277	272	308	326
264 Oregon Grad Inst of Science & Technolog	152	155	178	148	188	213	291	320
265 Tennessee Technological University	233	267	264	285	284	323	336	314
266 Alabama A & M University	256	210	196	206	240	254	268	312
267 Marshall University	236	244	236	216	237	261	298	305
268 Jackson State University	323	250	257	277	283	251	263	304
269 East Texas State University	481	36	348	377	363	346	340	303
270 Clarkson University	348	319	320	308	312	286	279	287
Total, 1st 270 institutions	358,660	363,762	368,335	376,410	389,758	404,905	423,308	431,736
271 Andrews University	0	0	181	189	275	283	284	273
272 Clark University	238	225	247	238	253	275	273	266
273 Wake Forest University	178	160	179	206	219	241	252	266
274 New York Medical College	344	386	391	290	257	203	227	263
275 New Mexico Institute of Mining and Tech	248	250	234	217	245	253	260	255
276 Univ of Med and Dentistry of New Jersey	219	236	271	240	253	277	239	254
277 Stephen F. Austin State University	274	237	206	205	200	201	258	250
278 University of San Diego	0	0	155	179	188	188	185	242
279 The Wright Institute	154	154	161	174	207	199	208	221
280 South Dakota School of Mines and Tech	202	232	236	274	259	274	248	219
Total, 1st 280 institutions	360,517	365,642	370,586	378,622	392,114	407,299	425,742	434,245
281 Florida A & M University	63	65	135	130	128	182	160	219
282 Tennessee State University	324	280	282	217	249	226	242	216
283 Medical University of South Carolina	108	84	88	108	164	167	187	208
284 Indiana University of Pennsylvania	0	0	63	103	123	140	158	203
285 Northeast Louisiana University	175	185	186	188	195	200	209	202
286 Caribbean Center for Advanced Studies	371	248	237	213	216	386	299	181
287 Medical College of Georgia	161	174	179	187	179	180	190	171
288 CUNY Mt. Sinai School of Medicine	0	115	130	135	146	164	156	170
289 Texas Christian University	136	133	135	143	153	143	162	169
290 Forest Institute of Professional Psych	190	251	254	260	256	206	185	169
Total, 1st 290 institutions	362,045	367,177	372,275	380,306	393,923	409,293	427,690	436,153
291 Hampton University	94	119	143	124	127	110	135	163
292 Finch U of Hlth Sci/The Chicago Med Sch	139	119	148	117	119	131	141	158
293 Golden Gate University	593	847	754	618	354	192	215	157
294 Biola University	168	160	166	173	190	188	156	155
295 University of the Pacific	124	141	165	156	144	154	157	153
296 Mercer University	0	107	136	144	88	116	158	152
297 Mayo Graduate School of Medicine	46	53	55	74	98	120	134	150
298 Chicago School of Prof Psych	103	130	176	144	158	134	139	148
299 Widener University	0	0	149	178	150	133	143	148
300 Alfred University	184	161	124	143	139	115	124	144
Total, 1st 300 institutions	363,496	369,014	374,291	382,177	395,490	410,686	429,192	437,681

See explanatory information, if any, and SOURCE(S) at end of table.

Table 24. Graduate science and engineering students in doctorate-granting institutions, ranked by 1993 total graduate science and engineering students: 1986-93

Institutional ranking	1986	1987	1988	1989	1990	1991	1992	1993
301 SUNY - Health Sci Ctr at Brooklyn	80	83	93	100	108	115	158	140
302 Wesleyan University	117	121	121	115	121	128	132	139
303 Eastern Virginia Medical School	71	73	78	70	111	118	126	138
304 Union College	311	209	175	133	144	158	153	137
305 Rockefeller University	121	117	117	121	128	128	134	136
306 Creighton University	139	150	165	136	130	116	131	136
307 University of Northern Iowa	107	91	89	83	102	117	114	135
308 Spalding University	132	167	167	151	149	140	131	130
309 Albany Medical College	92	93	110	100	86	87	116	127
310 Oregon Health Sciences University	64	74	90	88	103	119	121	127
Total, 1st 310 institutions	364,730	370,192	375,496	383,274	396,672	411,912	430,508	439,026
311 American International College	0	0	159	155	170	164	169	123
312 SUNY - Health Sci Ctr at Syracuse	47	57	55	60	51	82	78	115
313 Bryn Mawr College	138	133	127	116	114	154	123	112
314 Woods Hole Oceanographic Institution	125	120	113	0	92	102	113	112
315 The Medical College of Pennsylvania	60	90	86	92	100	109	118	112
316 Uniformed Serv Univ of the Hlth Science	100	108	116	126	123	118	100	106
317 Xavier University	0	0	0	57	61	91	99	105
318 Emerson College	0	0	69	74	58	72	102	105
319 CUNY Herbert H. Lehman College	113	73	75	75	78	61	53	96
320 University of Maryland Eastern Shore	0	0	39	62	82	104	115	90
Total, 1st 320 institutions	365,313	370,773	376,335	384,091	397,601	412,969	431,578	440,102
321 Univ of Osteopathic Med & Health Sci	0	0	0	0	68	74	78	80
322 Institute of Paper Science & Technology	91	95	69	45	57	70	73	77
323 U of North TX Hlth Sci Ctr at Ft Worth	58	60	59	70	79	89	76	75
324 Philadelphia Coll of Pharmacy and Sci	58	55	52	46	61	60	66	73
325 Catholic University of Puerto Rico	46	58	66	61	54	52	56	70
326 Meharry Medical College	32	34	36	35	47	54	60	69
327 Baylor College of Dentistry	46	52	56	57	47	48	53	61
328 RAND Graduate School of Policy Studies	62	70	60	60	48	60	55	61
329 Maharishi International University	0	0	31	68	77	76	64	52
330 University of New England	0	0	0	0	29	41	43	36
Total, 1st 330 institutions	365,706	371,197	376,764	384,533	398,168	413,593	432,202	440,756
331 Institute of Textile Technology	28	31	35	30	30	30	28	34
332 Mass College of Pharmacy/Allied Health	65	40	47	39	41	46	41	34
333 SUNY College of Optometry	14	19	33	33	28	22	18	14
334 Ponce School of Medicine	0	0	21	22	19	15	13	14
335 Morehouse School of Medicine	0	0	0	0	0	0	4	9
336 Smith College	4	4	5	6	5	6	8	7
337 Pacific University	0	0	18	6	6	9	7	5
338 Philadelphia Col of Osteopathic Med	0	0	0	0	0	0	2	2
339 University of Massachusetts at Worceste	0	0	0	0	0	0	0	0
340 The University of Health Sciences	0	0	0	0	0	0	0	0
Total, 1st 340 institutions	365,817	371,291	376,923	384,669	398,297	413,721	432,323	440,875
341 Univ of Texas M.D. Anderson Cancer Ctr	0	0	0	0	0	0	0	0
342 University of Dallas	0	0	0	0	0	0	0	0
343 University of Massachusetts at Amherst	0	0	0	0	0	0	0	0
344 Midwestern University	0	0	0	0	0	0	0	0
345 Providence College	0	0	0	0	0	0	0	0
346 Desert Research Institute	0	0	0	0	0	0	0	0
347 University of Massachusetts-Boston	0	0	0	0	0	0	0	0
348 University of Oklahoma Health Sci Cente	0	0	0	0	0	0	0	0
349 George Peabody College for Teachers	0	0	0	0	0	0	0	0
350 Atlanta University	425	406	389	0	0	0	0	0
Total, 1st 350 institutions	366,242	371,697	377,312	384,669	398,297	413,721	432,323	440,875
351 University of New Orleans	0	0	0	0	0	0	0	0
352 West Virginia School of Osteopathic Med	0	0	0	0	0	0	0	0
353 Oklahoma State Univ College of Osteo Me	0	0	0	0	0	0	0	0
354 Rosemead Graduate School of Psychology	0	0	0	0	0	0	0	0
355 Univ of Illinois Med Center - Chicago	0	0	0	0	0	0	0	0
356 Oral Roberts University	27	25	23	33	0	0	0	0
357 Heed University	0	0	0	0	0	0	0	0
358 University of Oklahoma Norman Campus	0	0	0	0	0	0	0	0
359 Kirksville College of Osteopathic Med	1	0	0	0	0	0	0	0
360 Charles R. Drew Univ of Medicine & Sci	0	0	0	0	0	0	0	0
Total, 1st 360 institutions	366,270	371,722	377,335	384,702	398,297	413,721	432,323	440,875

See explanatory information, if any, and SOURCE(S) at end of table.

Table 24. Graduate science and engineering students in doctorate-granting institutions, ranked by 1993 total graduate science and engineering students: 1986-93

Institutional ranking	1986	1987	1988	1989	1990	1991	1992	1993
361 NE Ohio Universities College of Medicin	0	0	0	0	0	0	0	0
362 Coll of Osteopathic Med of the Pacific	0	0	0	0	0	0	0	0
Total, 1st 362 institutions	366,270	371,722	377,335	384,702	398,297	413,721	432,323	440,875

NOTE: Includes medical schools

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 25. Science and engineering postdoctoral appointees in doctorate-granting institutions, by field and source of support, and number of postdoctoral appointees who were non-U.S. citizens: 1993

Field	Total	Source of support					Number of postdoctoral appointees who were non-U.S. citizens
		Federal				Non-Federal	
		Total	Fellowships	Traineeships	Research grants		
Total, all surveyed fields	34,405	23,733	2,966	2,923	17,844	10,672	17,586
Total, science and engineering fields	24,560	18,086	1,894	1,292	14,900	6,474	12,939
Sciences, total	22,123	16,425	1,851	1,273	13,301	5,698	11,345
Physical sciences	5,648	4,472	267	32	4,173	1,176	3,404
Astronomy	219	187	18	0	169	32	76
Chemistry	3,567	2,744	200	26	2,518	823	2,228
Physics	1,823	1,509	49	6	1,454	314	1,085
Physical sciences, n.e.c.	39	32	0	0	32	7	15
Earth, atmospheric, & ocean sciences	757	605	64	7	534	152	304
Atmospheric sciences	81	76	0	0	76	5	42
Geosciences	418	319	28	0	291	99	159
Oceanography	205	167	34	0	133	38	81
Earth, atmos., & ocean sci., n.e.c.	53	43	2	7	34	10	22
Mathematical sciences	220	166	34	8	124	54	117
Computer sciences	168	125	16	6	103	43	76
Agricultural sciences	717	447	28	3	416	270	344
Biological sciences	13,703	10,011	1,325	1,094	7,592	3,692	6,824
Anatomy	467	394	46	44	304	73	254
Biochemistry	2,335	1,809	219	93	1,497	526	1,256
Biology	1,459	1,143	210	50	883	316	655
Biometry/epidemiology	131	88	16	57	15	43	27
Biophysics	176	130	25	4	101	46	94
Botany	467	370	37	7	326	97	183
Cell biology	1,441	983	190	74	719	458	692
Ecology	65	55	4	1	50	10	26
Entomology/parasitology	223	165	5	1	159	58	87
Genetics	665	438	76	50	312	227	317
Microbio., immunology, & virology	1,895	1,345	150	193	1,002	550	957
Nutrition	210	123	6	9	108	87	125
Pathology	1,198	719	88	158	473	479	602
Pharmacology	1,349	1,048	109	185	754	301	743
Physiology	1,150	865	114	124	627	285	636
Zoology	174	111	10	7	94	63	54
Biosciences, n.e.c.	298	225	20	37	168	73	116
Psychology	530	401	65	99	237	129	134
Social sciences	380	198	52	24	122	182	142
Agricultural economics	46	31	0	0	31	15	34
Anthropology (cultural & social)	52	25	2	0	23	27	6
Economics (except agricultural)	38	19	12	3	4	19	20
Geography	28	11	0	0	11	17	8
Linguistics	29	19	6	7	6	10	7
Political science	35	13	5	0	8	22	15
Sociology	72	48	15	13	20	24	19
Sociology/anthropology	5	0	0	0	0	5	1
Social sciences, other	75	32	12	1	19	43	31
Engineering, total	2,437	1,661	43	19	1,599	776	1,594
Aerospace engineering	116	91	1	0	90	25	70
Agricultural engineering	39	18	2	0	16	21	30
Biomedical engineering	85	51	3	5	43	34	46
Chemical engineering	525	346	5	2	339	179	373
Civil engineering	188	121	2	3	116	67	123
Electrical engineering	382	264	9	3	252	118	250
Engineering science	78	73	5	0	68	5	42
Industrial eng./management sci.	63	42	1	0	41	21	29
Mechanical engineering	355	236	10	6	220	119	222
Metallurgical/materials eng.	405	257	1	0	256	148	290
Nuclear engineering	40	29	0	0	29	11	24
Engineering, other	161	133	4	0	129	28	95
Total, health fields	9,845	5,647	1,072	1,631	2,944	4,198	4,647
Clinical fields	7,770	4,292	839	1,383	2,070	3,478	3,675
Dental sciences	102	69	13	23	33	33	34
Nursing	40	25	10	8	7	15	4
Pharmaceutical sciences	534	353	21	11	321	181	341
Preventive medicine/community health	246	177	39	49	89	69	72
Speech pathology/audiology	49	46	9	7	30	3	12
Veterinary sciences	133	78	13	14	51	55	46
Other health fields	971	607	128	136	343	364	463

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 26. Science and engineering postdoctoral appointees in doctorate-granting institutions, by field: 1986-93

Field	1986	1987	1988	1989	1990	1991	1992	1993
Total, all surveyed fields	23,687	24,866	26,142	27,923	29,572	30,889	32,775	34,405
Total, science and engineering fields	17,839	18,751	19,670	20,846	21,754	22,811	23,813	24,560
Sciences, total	16,439	17,308	17,985	18,934	19,814	20,558	21,468	22,123
Physical sciences	4,813	4,945	5,185	5,355	5,565	5,693	5,757	5,648
Astronomy	133	124	147	186	184	210	206	219
Chemistry	3,149	3,235	3,421	3,457	3,630	3,647	3,564	3,567
Physics	1,499	1,552	1,584	1,683	1,723	1,813	1,948	1,823
Physical sciences, n.e.c.	32	34	33	29	28	23	39	39
Earth, atmospheric, & ocean sciences	417	420	493	450	590	622	686	757
Atmospheric sciences	43	58	71	58	57	59	64	81
Geosciences	247	239	273	265	342	368	395	418
Oceanography	98	81	116	107	170	161	186	205
Earth, atmos., & ocean sci., n.e.c.	29	42	33	20	21	34	41	53
Mathematical sciences	201	229	284	224	248	206	201	220
Computer sciences	72	99	91	78	71	120	144	168
Agricultural sciences	412	442	464	519	529	570	635	717
Biological sciences	9,683	10,338	10,651	11,406	11,911	12,467	13,166	13,703
Anatomy	342	332	377	460	463	509	501	467
Biochemistry	1,985	2,113	2,078	2,216	2,174	2,120	2,157	2,335
Biology	1,083	1,176	1,225	1,278	1,358	1,397	1,474	1,459
Biometry/epidemiology	93	74	70	100	97	100	122	131
Biophysics	133	116	124	138	118	156	176	176
Botany	377	410	445	447	449	488	492	467
Cell biology	812	899	884	966	1,258	1,264	1,308	1,441
Ecology	37	39	33	52	57	49	60	65
Entomology/parasitology	143	162	176	219	212	236	223	223
Genetics	428	493	504	535	614	625	671	665
Microbio., immunology, & virology	1,249	1,300	1,392	1,519	1,469	1,715	1,784	1,895
Nutrition	184	177	138	127	131	171	196	210
Pathology	696	745	803	880	1,018	1,079	1,176	1,198
Pharmacology	882	902	991	1,031	1,104	1,153	1,286	1,349
Physiology	904	1,019	1,034	1,067	1,043	1,060	1,139	1,150
Zoology	204	197	181	195	162	161	165	174
Biosciences, n.e.c.	131	184	196	174	184	184	236	298
Psychology	520	459	498	536	464	504	520	530
Social sciences	321	376	319	366	436	376	359	380
Agricultural economics	35	31	20	28	57	39	49	46
Anthropology (cultural & social)	52	54	56	74	64	51	59	52
Economics (except agricultural)	22	36	9	33	37	40	22	38
Geography	10	15	22	22	19	15	22	28
Linguistics	21	42	36	30	38	14	26	29
Political science	66	54	49	41	66	78	49	35
Sociology	84	93	73	75	94	90	72	72
Sociology/anthropology	1	3	1	0	2	1	3	5
Social sciences, other	30	48	53	63	59	48	57	75
Engineering, total	1,400	1,443	1,685	1,912	1,940	2,253	2,345	2,437
Aerospace engineering	48	43	48	38	67	77	92	116
Agricultural engineering	17	29	31	39	33	35	37	39
Biomedical engineering	53	44	47	69	72	61	81	85
Chemical engineering	295	310	423	466	551	578	533	525
Civil engineering	140	174	203	182	168	185	187	188
Electrical engineering	174	176	186	193	241	339	313	382
Engineering science	67	41	38	74	76	117	71	78
Industrial eng./management sci.	25	26	32	32	6	27	38	63
Mechanical engineering	239	216	216	302	219	323	349	355
Metallurgical/materials eng.	250	283	325	323	365	394	450	405
Nuclear engineering	31	20	17	36	30	29	34	40
Engineering, other	61	81	119	158	112	88	160	161
Total, health fields	5,848	6,115	6,472	7,077	7,818	8,078	8,962	9,845
Clinical fields	4,555	4,738	4,965	5,549	6,238	6,425	7,142	7,770
Dental sciences	102	77	94	45	53	77	75	102
Nursing	16	49	30	36	23	28	28	40
Pharmaceutical sciences	384	407	484	533	487	475	486	534
Preventive medicine/community health	223	188	163	192	218	216	238	246
Speech pathology/audiology	12	25	26	28	27	40	46	49
Veterinary sciences	100	112	132	111	102	119	117	133
Other health fields	456	519	578	583	670	698	830	971

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

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Survey Materials

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INSTRUCTIONS

FOR THE NSF-NIH SURVEY OF GRADUATE STUDENTS AND POSTDOCTORATES IN SCIENCE AND ENGINEERING, FALL 1993

PURPOSE OF THE SURVEY

The survey provides a comprehensive picture of the training of future scientists and engineers in the Nation's graduate schools. Data are used by Congress and the executive branch during budget preparation, and by State government agencies and other analysts to assess the future supply of science and engineering (S&E) personnel.

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. All information provided will be used for statistical purposes only. Response is entirely voluntary and failure to provide some or all of the information will in no way adversely affect your institution.

The average time required for questionnaire completion is two hours. Response burden comments should be directed to Herman Fleming of NSF at (703) 306-1243.

Students included in this survey

Count as graduate students persons enrolled **for credit** in any S&E master's or Ph.D. degree program in fall 1993. Report M.D., D.O., D.V.M., or D.D.S. candidates, interns, and residents in Items 5 through 7 **only** if they are concurrently working for an S&E master's or Ph.D. or are enrolled in a joint medical/Ph.D. program. Individuals who already hold graduate or medical degrees and are working on another master's or Ph.D. degree are considered graduate students (Items 5 through 7), not postdoctorates (Item 8).

Include S&E students performing thesis or dissertation research away from the campus (for example, at Government- and contractor-owned facilities) in the United States as long as they are enrolled for credit in an advanced-degree program.

All data should be reported in terms of headcounts, not full-time equivalents (FTEs).

Students excluded from this survey

Exclude students enrolled in a foreign country (at a branch or extension center), and non-matriculated students.

Students enrolled in multiple departments/institutions

A student should be reported in only **one** department. Students enrolled in interdisciplinary/interinstitutional programs should be counted only once, by their "home" department and institution.

INCOMPLETE DATA

Please write "unavailable" or "unknown" in data cells as applicable. On this form, "N/A" means "not applicable." Data cells left blank are presumed to be zeroes.

ITEM 5: FULL-TIME STUDENTS

Report the total number of full-time degree-seeking students in line 6, column (K). Then, in lines (1) through (6), count each full-time student **only once** by **largest** source of support so that all columns and rows in Item 5 sum to the full-time total in line 6, column (K). In Item 5, count only graduate students pursuing an S&E degree according to a full-time schedule; this may include any combination of study, teaching, and research, depending on your institution's policy and definition of full-time status. For example, many institutions base full-time status on the number of credit hours taken; others calculate full-time according to the amount of fees paid by the student.

Mechanisms of Support—Lines (1) through (5)

A **fellowship,** line (1), is any competitive award (often from a national competition) made to a student that requires no work of the recipient. A **traineeship,** line (2), is an educational award given to a student selected by the institution. An **assistantship** should be classified as **research,** line (3), or **teaching,** line (4), depending on assigned duties; e.g., a student devoting most of his or her time to teaching should be reported on line (4). All other full-time students, including members of the Armed Forces whose tuition is paid by the Department of Defense, and self-supported students, should be reported on line (5).

Federal sources of support—Columns (A) through (F)

Department of Defense (DOD)—Column (A): Sources include the Departments of the Army, Navy, or Air Force, as well as programs within the Office of the Secretary of Defense. Students receiving their main support from the Veterans Administration under the G.I. Bill should be reported under column (F), "Other Federal sources."

Department of Health and Human Services (HHS)—Columns (B) and (C): Report students with support from the institutes or divisions of the National Institutes of Health (NIH) under column (B); report support from all other components of HHS in column (C). Refer to the organizational roster under "Definitions."

National Science Foundation (NSF)—Column (D): Report students receiving NSF graduate fellowships and minority fellowships, as well as those supported under NSF research grants.

U.S. Department of Agriculture (USDA)—Column (E): Include research assistants working on projects financed out of Hatch, McIntyre-Stennis, or Smith-Lever formula funds, competitive research grants, and institution fellowship/training grants.

Other Federal Sources—Column (F): Report students receiving support from Federal agencies other than those listed in columns (A) through (E), such as the Fulbright program, the G.I. Bill, and Department of Education and Department of Energy programs. Students primarily supported by Federal loans should be reported in column (J): self-supported students.

Non-Federal Sources of Support—Cols. (G) through (I)

Institutional support—Column (G): Report students supported from YOUR institution, including those receiving tuition waivers. State and local government support should also be reported in this column. Students primarily supported with funds from the Federal government, such as training grants, however, should be reported under the appropriate Federal agency.

Foreign sources—Column (H): Report students supported from any non-U.S. source, such as foreign governments, industrial firms, or specialized agencies of the United Nations.

Other U.S. sources—Column (I): Report students supported from nonprofit institutions, private industry, and all other non-Federal U.S. sources not included in columns (G) or (J).

Self-supported students—Column (J): Report both foreign and U.S. citizen students whose largest source of support comes from ANY loans (including Federal loans) or from personal or family financial contributions. **These students must be included in the full-time total, line 6, column (K).**

Women—Line (7)

Report all female students by the source of their primary support. In each column, data on line (7) should not exceed the total on line (6).

First-time full-time students—Lines (8) and (9)

A first-time student has enrolled in the program in which he or she is pursuing a degree as of the beginning of the fall term in 1993. All other students should be considered to be beyond their first time of enrollment.

ITEM 6: PART-TIME STUDENTS

Report all part-time students in Item 6, regardless of their source of support. Part-time students are pursuing an S&E graduate degree but NOT on a full-time schedule. Consider students part-time according to your own institution's definition of part-time status.

ITEM 7: CITIZENSHIP AND RACIAL/ETHNIC BACKGROUND OF U.S. CITIZENS AND PERMANENT RESIDENTS

Report all U.S. citizens and permanent residents in columns (A) through (G), and count each student only once according to his or her racial/ethnic category as defined by the Bureau of the Census, listed under "Definitions."

Count foreign students, i.e., those holding temporary visas, only **once** in column (H), regardless of race/ethnicity. Native residents of a U.S. possession and applicants for U.S. citizenship holding green cards, however, should be reported as U.S. citizens.

Total full- and part-time enrollments reported in Item 7 should match those reported in Items 5 and 6, respectively. Note that lines 1, 2, 4, and 5 are **optional** for the fall 1993 survey.

ITEM 8: POSTDOCTORATES AND NONFACULTY RESEARCH STAFF WITH DOCTORATES

Postdoctorates—Columns (A) through (F): Include individuals with science and engineering Ph.D.'s, M.D.'s, D.D.S.'s, or D.V.M.'s (including foreign degrees equivalent to U.S. doctorates) who devote their **primary effort to their own research training through research activities or study** in the department under temporary appointments carrying no academic rank. These individuals may contribute to the academic program through seminars, lectures, or working with graduate students. Such postdoctorates may have different titles at different institutions, e.g., "Postdoctoral Scholar," "Research Associate," "Postdoctoral Fellow," or "Postgraduate Researcher." Exclude, however, clinical fellows and those with appointments in residency training programs in medical and health professions, **unless research training under the supervision of a senior mentor is the primary purpose** of the appointment.

Report postdoctorates by source of support in columns (A) through (D), with the total number of postdoctorates reported in column (E). Of this total, report the number who are foreign in column (F).

Other non-faculty research staff with doctorates—Column (G): Include all doctoral scientists and engineers who are involved principally in research activities but are not considered either postdoctoral appointees or members of the regular faculty.

On line (2), report the number of women in each category. On line (3), report those postdoctorates and nonfaculty research staff who hold first professional medical degrees (M.D., D.D.S., D.O., D.V.M.). Please note that in each column, data on lines (2) and (3) should not exceed the total on line (1).

DEFINITIONS

(1) NATIONAL INSTITUTES OF HEALTH ORGANIZATIONAL ROSTER—Item 5, column (B)

Fogarty International Center
National Cancer Institute
National Center for Human Genome Research
National Center for Nursing Research
National Center for Research Resources
National Eye Institute
National Heart, Lung and Blood Institute
National Institute of Arthritis and Musculoskeletal and Skin Diseases
National Institute of Child Health and Human Development
National Institute of Dental Research
National Institute of Diabetes and Digestive and Kidney Diseases
National Institute of Environmental Health Sciences
National Institute of General Medical Sciences
National Institute of Mental Health
National Institute of Neurological Disorders and Stroke
National Institute on Aging
National Institute on Alcohol Abuse and Alcoholism
National Institute on Allergy and Infectious Disease
National Institute on Deafness and Other Communication Disorders
National Institute on Drug Abuse
National Library of Medicine

(2) OTHER HHS ADMINISTRATIVE UNITS —Item 5, column (C)

Substance Abuse and Mental Health Services Administration
(Please note that the former Alcohol, Drug Abuse and Mental Health Administration institutes are now part of the National Institutes of Health.)
Centers for Disease Control
National Institute for Occupational Safety and Health
Food and Drug Administration
Health Resources and Services Administration
Office of Human Development

(3) RACIAL/ETHNIC CATEGORIES FOR U.S. CITIZENS AND PERMANENT RESIDENTS DEFINED BY THE BUREAU OF THE CENSUS —Item 7

Black, non-Hispanic: Persons having origins in any of the black racial groups (except those of Hispanic origin).

American Indian or Alaskan native: Persons having origins in any of the original peoples of North America.

Asian or Pacific Islander: Persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. These areas include China, Japan, Korea, the Philippine Islands, and Samoa.

Hispanic: Persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White, non-Hispanic: Persons having origins in any of the original peoples of Europe, North Africa, or the Middle East, except those of Hispanic origin.

FOR FURTHER INFORMATION . . .

If you have any questions about this survey, please contact J.G. Huckenpöhler, Ph.D., of the National Science Foundation, at (703) 306-1774.

UPON COMPLETING THIS FORM, PLEASE RETURN IT TO YOUR SURVEY COORDINATOR FOR TRANSMITTAL BY JANUARY 31, 1994.

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NSF Form 812 Oct 93

NATIONAL SCIENCE FOUNDATION and NATIONAL INSTITUTES OF HEALTH
Survey of Graduate Students and Postdoctorates in Science and Engineering, Fall 1993

Form approved
OMB No. 3145-0062
Appr Exp 11/1/96

DEPARTMENT OR PROGRAM DATA SHEET

Due date: January 31, 1994

ITEMS 1-4. IDENTIFYING INFORMATION

1. Institution name: _____

2. Name of S&E department or program: _____

If changed since last year, please indicate previous name and whether this represents a merger, split, or expanded program: _____

3. Person in department (or program) preparing this form:
Name: _____
Title: _____
Phone: (____) _____

4. Highest **graduate** degree available in this department or program (CHECK ONE): (1) Ph.D.[1] ☐ (2) Master's ☐ (3) No Ph.D.[1] or master's program offered ☐

Institution and department code (LEAVE BLANK)

Report all data on a headcount basis (use whole numbers, *not* fractions, decimals, FTEs, etc.). If your department does not enroll graduate students, please go to item 8.

ITEM 5. NUMBER OF **FULL-TIME** GRADUATE STUDENTS enrolled for advanced degrees (master's and doctoral) in fall 1993. Report each student **only once** according to the source and mechanism of the **largest amount of support** received in fall 1993.

Students receiving equal support from multiple sources or through multiple mechanisms should be reported only once. When determining the largest source of support, consider **all** graduate school academic expenses including tuition, tuition remission, and stipends.

MECHANISMS OF SUPPORT	Line	STUDENTS RECEIVING FINANCIAL ASSISTANCE: FEDERAL SOURCES (excluding loans): Department of Defense (A)	HHS: National Institutes of Health (B)	HHS: Other HHS (C)	National Science Foundation (D)	Department of Agriculture (E)	Other Federal sources (F)	NON-FEDERAL SOURCES: Institutional Support (including State & local government) (G)	Foreign sources (H)	Other U.S. sources (I)	SELF-SUPPORTED STUDENTS (including loans and family sources) (J)	TOTAL FULL-TIME GRADUATE ENROLLMENT (Sum of (A) through (J)) (K)
Graduate Fellowships	(1)											
Graduate Traineeships	(2)											
Graduate Research Assistantships	(3)											
Graduate Teaching Assistantships	(4)											
Other Types of Support	(5)											
FULL-TIME TOTAL[2]	(6)											
Of the students in line (6), how many in each data cell are WOMEN?[3]	(7)											

First-Time Full-Time Students	(8)	Of the full-time students on line (6), column (K), how many are **FIRST-TIME**? **(Should not exceed total in line (6K))**
First-Time Full-Time Women Students	(9)	Of the first-time students on line (8), how many are **WOMEN**?

[1] Or Ph.D. equivalent such as Sc.D. and D.Eng., but not Ed.D., M.D., or other professional degree
[2] The total from line (6) should be inserted in item 7, line (3), column (I).
[3] The total from line (7) should be inserted in item 7, line (2), column (I).

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ITEM 6. NUMBER OF **PART-TIME** GRADUATE STUDENTS enrolled for advanced degrees (master's and Ph.D.) in fall 1993.

PART-TIME TOTAL (The total from line (1) should be inserted below in item 7, line (6), column (I).)	(1)	
Of the part-time students on line (1), how many are **WOMEN**? **(The total from line (2) should be inserted below in item 7, line (5), column (I).)**	(2)	

ITEM 7. RACE/ETHNICITY of FULL-TIME (Item 5) and PART-TIME (Item 6) graduate students in fall 1993, by sex	Of the student totals in items 5 and 6, how many belong to the following RACIAL/ETHNIC categories? **In each line, count each student only once.**		U.S. CITIZENS AND PERMANENT RESIDENTS							**FOREIGN:** temporary visa holders (H)	**TOTAL** (Sum of (A) through (H)) (I)
			Black non-Hispanic (A)	Amer. Indian/ Alaskan Native (B)	Asian/ Pacific Islander (C)	Hispanic (D)	White non-Hispanic (E)	Other (F)	Unknown or declined to state (G)		
	MEN ENROLLED FULL TIME	(1)									
	WOMEN ENROLLED FULL TIME (column (I) should equal item 5, line (7), column (K))	(2)									
	FULL TIME, TOTAL (column (I) should equal item 5, line (6), column (K))	(3)									
	MEN ENROLLED PART TIME	(4)									
	WOMEN ENROLLED PART TIME (column (I) should equal item 6, line (2))	(5)									
	PART TIME, TOTAL (column (I) should equal item 6, line (1))	(6)									

ITEM 8. NUMBER OF **POSTDOCTORATES AND NON-FACULTY RESEARCH STAFF WITH DOCTORATES** in fall 1993.		POSTDOCTORATES						OTHER NON-FACULTY RESEARCH STAFF WITH DOCTORATES (G)
		SOURCE OF SUPPORT				**TOTAL** for all sources (A) through (D) (E)	Of the total in (E), how many are **FOREIGN?** (F)	
		FEDERAL			NON-FEDERAL (D)			
		Fellowships (A)	Traineeships (B)	Research grants (C)				
TOTAL	(1)							
Of the total in each cell of line (1), how many are WOMEN?	(2)							
Of the total in each cell of line (1), how many hold the M.D., D.O., D.D.S., or D.V.M. degree?	(3)							

Approximately how many personhours were required to complete this form?

List other Federal sources (agencies), from item 5, column (F), and number of full-time students supported by each:

Please explain variances from prior year's data or include other comments:

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Survey of Graduate Students and Postdoctorates in Science and Engineering
CROSSWALK BETWEEN NSF DISCIPLINE CODES AND THE NCES CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

The following set of discipline codes is used to categorize science and engineering departments or programs in the Survey of Graduate Students and Postdoctorates in Science and Engineering. Representative department names are shown under each of the discipline codes.

ENGINEERING

101 AEROSPACE ENGINEERING
- 14.02 AEROSPACE, AERONAUTICAL, AND ASTRONAUTICAL ENGR.

102 AGRICULTURAL ENGINEERING
- 14.03 AGRICULTURAL ENGINEERING

103 BIOMEDICAL ENGINEERING
- 14.05 BIOENGINEERING AND BIOMEDICAL ENGINEERING

104 CHEMICAL ENGINEERING
- 03.0509 WOOD SCIENCE
- 14.07 CHEMICAL ENGINEERING
- 14.32 POLYMER/PLASTICS ENGINEERING

105 CIVIL ENGINEERING
- 04.02 ARCHITECTURE
- 14.04 ARCHITECTURAL ENGINEERING
- 14.08 CIVIL ENGINEERING
- 14.0803 STRUCTURAL ENGINEERING
- 14.0805 WATER RESOURCES ENGINEERING
- 14.14 ENVIRONMENTAL/ENVIRONMENTAL HEALTH ENGINEERING

106 ELECTRICAL ENGINEERING
- 14.09 COMPUTER ENGINEERING
- 14.10 ELECTRICAL, ELECTRONICS, AND COMMUNICATIONS ENGR.

107 ENGINEERING SCIENCE AND ENGINEERING PHYSICS
- 14.12 ENGINEERING PHYSICS
- 14.13 ENGINEERING SCIENCE

108 INDUSTRIAL/MANUFACTURING ENGINEERING
- 14.17 INDUSTRIAL/MANUFACTURING ENGINEERING
- 14.27 SYSTEMS ENGINEERING
- 14.30 ENGINEERING/INDUSTRIAL MANAGEMENT
- 30.06 SYSTEMS SCIENCE

109 MECHANICAL ENGINEERING
- 14.11 ENGINEERING MECHANICS
- 14.19 MECHANICAL ENGINEERING

110 METALLURGICAL AND MATERIALS ENGINEERING
- 14.06 CERAMIC SCIENCES AND ENGINEERING
- 14.18 MATERIALS ENGINEERING
- 14.20 METALLURGICAL ENGINEERING
- 14.28 TEXTILE SCIENCES AND ENGINEERING
- 14.31 MATERIALS SCIENCE
- 40.0701 METALLURGY

111 MINING ENGINEERING
- 14.15 GEOLOGICAL ENGINEERING
- 14.16 GEOPHYSICAL ENGINEERING
- 14.21 MINING AND MINERAL ENGINEERING

112 NUCLEAR ENGINEERING
- 14.23 NUCLEAR ENGINEERING

113 PETROLEUM ENGINEERING
- 14.25 PETROLEUM ENGINEERING

114 ENGINEERING, N.E.C.
- 14.01 ENGINEERING, GENERAL
- 14.22 NAVAL ARCHITECTURE AND MARINE ENGINEERING
- 14.24 OCEAN ENGINEERING
- 14.29 ENGINEERING DESIGN
- 14.99 ENGINEERING, OTHER

PHYSICAL SCIENCES

201 ASTRONOMY
- 40.02 ASTRONOMY
- 40.03 ASTROPHYSICS

202 CHEMISTRY
- 40.05 CHEMISTRY (SEE ALSO 602)
- 40.0507 POLYMER CHEMISTRY

203 PHYSICS
- 40.08 PHYSICS (SEE ALSO 605)
- 40.0807 OPTICS
- 40.0809 ACOUSTICS

204 PHYSICAL SCIENCES, N.E.C.
- 40.01 PHYSICAL SCIENCES, GENERAL
- 40.0799 MISCELLANEOUS PHYSICAL SCIENCES, OTHER
- 40.99 PHYSICAL SCIENCES, OTHER

EARTH, ATMOSPHERIC, AND OCEAN SCIENCES

301 ATMOSPHERIC SCIENCES
- 40.04 ATMOSPHERIC SCIENCES AND METEOROLOGY

302 GEOSCIENCES
- 40.06 GEOLOGICAL AND RELATED SCIENCES
- 40.0703 EARTH AND PLANETARY SCIENCES

303 OCEAN SCIENCES
- 26.0607 MARINE/AQUATIC BIOLOGY
- 40.0702 OCEANOGRAPHY

304 EARTH, ATMOSPHERIC, AND OCEAN SCIENCES, N.E.C.

MATHEMATICAL SCIENCES

402 MATHEMATICS AND APPLIED MATHEMATICS
- 27.01 MATHEMATICS
- 27.03 APPLIED MATHEMATICS
- 27.0302 OPERATIONS RESEARCH
- 27.99 MATHEMATICS, OTHER
- 30.08 MATHEMATICS AND COMPUTER SCIENCE

403 STATISTICS
- 27.05 MATHEMATICAL STATISTICS
- 52.0802 ACTUARIAL SCIENCE

COMPUTER SCIENCE

401 COMPUTER SCIENCE
- 11.01 COMPUTER AND INFORMATION SCIENCES, GENERAL
- 11.04 INFORMATION SCIENCES AND SYSTEMS
- 11.07 COMPUTER SCIENCE
- 52.1201 MANAGEMENT INFORMATION SYSTEMS
- 52.13 MANAGEMENT SCIENCE

AGRICULTURAL SCIENCES (SEE ALSO 102 AND 901)

501 AGRICULTURAL SCIENCES
- 02.01 AGRICULTURE/AGRICULTURAL SCIENCES
- 02.02 ANIMAL SCIENCES
- 02.03 FOOD SCIENCES
- 02.04 PLANT SCIENCES
- 02.05 SOIL SCIENCES
- 02.99 AGRICULTURAL SCIENCES, OTHER
- 03.01 NATURAL RESOURCES CONSERVATION
- 03.02 CONSERVATION AND REGULATION
- 03.03 FISHING AND FISHERIES SCIENCES AND MANAGEMENT
- 03.05 FORESTRY AND RELATED SCIENCES
- 03.06 WILDLIFE AND WILDLANDS MANAGEMENT
- 03.99 CONSERVATION AND NATURAL RESOURCES, OTHER

BIOLOGICAL SCIENCES

601 ANATOMY
- 26.0601 ANATOMY
- 51.1301 MEDICAL ANATOMY

602 BIOCHEMISTRY
- 26.0202 BIOCHEMISTRY
- 51.1302 MEDICAL BIOCHEMISTRY

603 BIOLOGY
- 26.01 BIOLOGY, GENERAL

604 BIOMETRY AND EPIDEMIOLOGY
- 26.0614 BIOMETRICS
- 26.0615 BIOSTATISTICS
- 51.1303 MEDICAL BIOMATHEMATICS AND BIOMETRICS
- 51.2203 EPIDEMIOLOGY

605 BIOPHYSICS
- 26.0203 BIOPHYSICS
- 51.1304 MEDICAL BIOPHYSICS/PHYSICS

606 BOTANY
- 26.03 BOTANY (EXCLUDING 26.05 MICROBIOLOGY/BACTERIOLOGY—SEE 611)
- 26.0305 PLANT PATHOLOGY
- 26.0307 PLANT PHYSIOLOGY

607 CELL AND MOLECULAR BIOLOGY
- 26.04 CELL AND MOLECULAR BIOLOGY
- 26.0401 CELL BIOLOGY
- 26.0402 MOLECULAR BIOLOGY
- 51.1305 MEDICAL CELL BIOLOGY
- 51.1309 MEDICAL MOLECULAR BIOLOGY

608 ECOLOGY
26.0603 ECOLOGY

609 ENTOMOLOGY AND PARASITOLOGY
26.0610 PARASITOLOGY
26.0702 ENTOMOLOGY

610 GENETICS
26.0613 GENETICS, PLANT AND ANIMAL
26.0617 EVOLUTIONARY BIOLOGY
51.1306 MEDICAL GENETICS

611 MICROBIOLOGY, IMMUNOLOGY, AND VIROLOGY
26.05 MICROBIOLOGY/BACTERIOLOGY
26.0618 BIOLOGICAL IMMUNOLOGY
26.0619 VIROLOGY
51.1308 MEDICAL MICROBIOLOGY

612 NUTRITION
19.05 FOODS AND NUTRITION STUDIES
26.0609 NUTRITIONAL SCIENCES
51.1311 MEDICAL NUTRITION

613 PATHOLOGY
26.0704 PATHOLOGY, HUMAN AND ANIMAL
51.1312 MEDICAL PATHOLOGY

614 PHARMACOLOGY
26.0612 TOXICOLOGY
26.0705 PHARMACOLOGY, HUMAN AND ANIMAL
51.1314 MEDICAL TOXICOLOGY

615 PHYSIOLOGY
26.0706 PHYSIOLOGY, HUMAN AND ANIMAL
51.1313 MEDICAL PHYSIOLOGY

616 ZOOLOGY
26.07 ZOOLOGY

617 BIOSCIENCES, N.E.C.
26.0616 BIOTECHNOLOGY RESEARCH
26.0699 MISCELLANEOUS BIOLOGICAL SPECIALIZATIONS, OTHER
26.99 BIOLOGICAL SCIENCES/LIFE SCIENCES, OTHER
30.01 BIOLOGICAL AND PHYSICAL SCIENCES
30.10 BIOPSYCHOLOGY

PSYCHOLOGY

801 PSYCHOLOGY, COMBINED
42.01 PSYCHOLOGY, GENERAL

802 PSYCHOLOGY, EXCEPT CLINICAL
42.03 COGNITIVE PSYCHOLOGY AND PSYCHOLINGUISTICS
42.04 COMMUNITY PSYCHOLOGY
42.07 DEVELOPMENTAL AND CHILD PSYCHOLOGY
42.08 EXPERIMENTAL PSYCHOLOGY
42.09 INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY
42.11 PHYSIOLOGICAL PSYCHOLOGY/PSYCHOBIOLOGY
42.16 SOCIAL PSYCHOLOGY
42.17 SCHOOL PSYCHOLOGY
42.99 PSYCHOLOGY, OTHER
51.2301 ART THERAPY
51.2303 HYPNOTHERAPY
51.2705 PSYCHOANALYSIS

803 CLINICAL PSYCHOLOGY
42.02 CLINICAL PSYCHOLOGY

SOCIAL SCIENCES

901 AGRICULTURAL ECONOMICS
01.0101 AGRICULTURAL BUSINESS AND MANAGEMENT, GENERAL
01.0102 AGRICULTURAL BUSINESS/AGRIBUSINESS OPERATIONS
01.0103 AGRICULTURAL ECONOMICS

902 ANTHROPOLOGY (CULTURAL AND SOCIAL)
45.02 ANTHROPOLOGY
45.03 ARCHAEOLOGY

903 ECONOMICS
45.06 ECONOMICS
52.06 BUSINESS/MANAGERIAL ECONOMICS

904 GEOGRAPHY
45.0701 GEOGRAPHY
45.0702 CARTOGRAPHY

905 HISTORY AND PHILOSOPHY OF SCIENCE
45.0804 HISTORY AND PHILOSOPHY OF SCIENCE

906 LINGUISTICS
16.0102 LINGUISTICS

907 POLITICAL SCIENCE/PUBLIC ADMINISTRATION
44.04 PUBLIC ADMINISTRATION
44.05 PUBLIC POLICY ANALYSIS
44.99 PUBLIC ADMINISTRATION AND SERVICES, OTHER
45.09 INTERNATIONAL RELATIONS AND AFFAIRS
45.10 POLITICAL SCIENCE AND GOVERNMENT

908 SOCIOLOGY
45.05 DEMOGRAPHY AND POPULATION STUDIES
45.11 SOCIOLOGY

909 SOCIOLOGY/ANTHROPOLOGY

910 SOCIAL SCIENCES, N.E.C.
04.03 CITY/URBAN, COMMUNITY, AND REGIONAL PLANNING
04.07 ARCHITECTURAL URBAN DESIGN AND PLANNING
05 AREA, ETHNIC, AND CULTURAL STUDIES
30.11 GERONTOLOGY
43.01 CRIMINAL JUSTICE AND CORRECTIONS
44.02 COMMUNITY ORGANIZATION, RESOURCES, AND SERVICES
45.01 SOCIAL SCIENCES, GENERAL
45.04 CRIMINOLOGY
45.12 URBAN AFFAIRS/STUDIES
45.99 SOCIAL SCIENCES, OTHER

HEALTH FIELDS (SEE ALSO 103)

701 ANESTHESIOLOGY
51.1604 NURSING ANESTHETIST (POST-R.N.)

702 CARDIOLOGY

703 ONCOLOGY/CANCER RESEARCH

704 ENDOCRINOLOGY

705 GASTROENTEROLOGY

706 HEMATOLOGY

707 NEUROLOGY
26.0608 NEUROSCIENCES

708 OBSTETRICS AND GYNECOLOGY

709 OPHTHALMOLOGY
51.1701 OPTOMETRY (O.D.)

710 OTORHINOLARYNGOLOGY

711 PEDIATRICS

712 PREVENTIVE MEDICINE AND COMMUNITY HEALTH
51.22 PUBLIC HEALTH
51.2202 ENVIRONMENTAL HEALTH

713 PSYCHIATRY
51.1610 NURSING, PSYCHIATRY/MENTAL HEALTH (POST-R.N.)

714 PULMONARY DISEASE

715 RADIOLOGY
26.0611 RADIATION BIOLOGY/RADIOBIOLOGY

716 SURGERY

717 CLINICAL MEDICINE, N.E.C.
51.1399 MEDICAL BASIC SCIENCES, OTHER
51.1201 MEDICINE (M.D.)
51.14 MEDICAL CLINICAL SCIENCES (M.S., Ph.D.)
51.19 OSTEOPATHIC MEDICINE (D.O.)
51.21 PODIATRY (D.P.M., D.P., Pod.D.)

718 DENTAL SCIENCES
51.04 DENTISTRY (D.D.S., D.M.D.)
51.05 DENTAL CLINICAL SCIENCES/GRAD. DENTISTRY (M.S., Ph.D.)

719 NURSING
51.16 NURSING
(EXCLUDING 51.1610, NURSING, PSYCHIATRY/MENTAL HEALTH—SEE 713, AND 51.1604 NURSING ANESTHETIST—SEE 701)

720 PHARMACEUTICAL SCIENCES
51.20 PHARMACY

721 VETERINARY SCIENCES
51.24 VETERINARY MEDICINE (D.V.M.)
51.25 VETERINARY CLINICAL SCIENCES (M.S., Ph.D.)

722 HEALTH-RELATED, N.E.C.
31.0505 EXERCISE SCIENCE/PHYSIOLOGY AND MOVEMENT STUDIES
51.2306 OCCUPATIONAL THERAPY
51.2308 PHYSICAL THERAPY
51.2399 REHABILITATION/THERAPEUTIC SERVICES, OTHER
51.2704 NATUROPATHIC MEDICINE
51.99 HEALTH PROFESSIONS AND RELATED SCIENCES, OTHER

723 COMMUNICATION DISORDERS SCIENCES
51.02 COMMUNICATION DISORDERS SCIENCES AND SERVICES
51.0201 COMMUNICATION DISORDERS, GENERAL
51.0202 AUDIOLOGY/HEARING SCIENCES
51.0203 SPEECH-LANGUAGE PATHOLOGY
51.0204 SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

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In order to meet the needs and particular interests expressed by those who use the data from the Survey of Graduate Students and Postdoctorates in Science and Engineering, NSF has prepared 18 pamphlets that focus on specific topics of survey results. If you would like to receive additional pamphlets, please check the appropriate boxes below and return this page with your name and address to the NSF Project Monitor—

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- ☐ 4. By mechanism of support
- ☐ 5. By sex
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